AT&T SECURITY SYSTEM 8000

DEALER REFERENCE MANUAL
INSTALLATION INSTRUCTIONS

AT& T – PROPRIETARY (RESTRICTED)
Soley for authorized persons having a need-to-know
Pursuant to Company Instructions

[illegible]-025

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CUSTOMER RELATIONS

CUSTOMER SERVICE

Meeting customers' needs and expectations is what good customer service is all about.

Exceeding those expectations is what AT&T is all about.

The homeowners you meet have expressed their confidence and trust in your dealership and AT&T by purchasing the Security System 8000.

Customers not only expect a good product, they expect excellent customer service. Customer expectations of excellent service include:

- **Getting what they paid for**
- **Being treated courteously**
- **Receiving prompt and efficient service**
- **Being treated as individuals**
- **Being treated with respect for their concerns**
- **Getting what they want, when they want it**

Professionalism

Customers assume you will provide them with a professional, reliable installation of their home security system. They also presume that you, the installer, are a professional at your trade.

There are five key attributes that make up a professional:

Knowledgc **Knowing your product and using your skills to service their needs.**

Excellent Customer Relationship **Developing a rapport with the customer and satisfying their needs.**

Good Service

Providing the services that people have come to expect when they buy AT&T brand products.

Accountability

You are the official representative of AT&T and your dealership. Every claim a customer makes and every promise you make to the customer determines your accountability.

Attitude

Take pride in every installation and service call. You want your customer to feel confident that you are helpful, willing and truly care about the safety of their home and family.

No doubt in your own eyes, and the eyes of your dealership, you are a professional. Keep in mind though, that to the homeowner you may be perceived as a stranger and a guest in their home.

Customers who care enough to invest in a home security system are naturally concerned about having strangers in their house. It is important for you to establish a positive, comfortable, trusting rapport with the homeowner before you begin any installation or service call.

Customer Contact

There are ten simple steps you can take before and during your initial contact with your customers which will help you set them at ease, and make your job easier.

1. People really do judge a book by its cover. Before you enter anyone's home, check to make sure you appear clean and professional Customers often associate a careless appearance with careless work. If you wear a company uniform, wear it proudly.

   Because you need to travel freely through the home during an installation, you don't want to give the homeowner cause for following you around, checking for mud or grease on their carpets.

2 Greet the customer with a friendly, caring smile. Address them by name, introduce yourself, and anyone else you may have assisting you.

3. Thank the customer for purchasing the AT&T Security System 8000. Assure them that this investment is the Right Choice for their home and family.

4. Briefly explain to the customer what you'll be doing in their home and how long you expect the installation to take.

5. If you need to know the location of particular points or areas in home, ask these questions in a polite tone of voice.

6. Reassure the customer that once you've completed the installation, you'll review the operation of the Security System 8000 thoroughly, and answer any and all of their questions.

7. During the installation, be conscientious of any disruptions you may incur, such as waking small children or elderly occupants.

   Also, be aware of any debris you may create while installing system units. Be careful to clean up installation areas as best you can.If your company provides you with a small vacuum, please remember to use it appropriately.

8. After testing the system thoroughly, ask the customer if they are ready to review the use of the system.

   Taking the homeowner through the arming and disarming steps slowly.Show them that you care that they understand the functions and are comfortable with operating the system.

   Refer the customer to the Checklist on the Survey and the Owners Reference Manual to reinforce your verbal walk-through.

   Finally, reassure the customer that they are free to call the dealership at any time with questions or concerns. Leave a business card if that is a practice of your company.

9. Make a final check of your work area for tools, spare parts and debris.

10. Thank the customer for taking the time to be home and helping with the installation.

These basic courtesies will yield several benefits to you, your company and your customers.

You will experience a better, easier installation because the customer will be on your side, not at your side.

Your dealership will benefit from the rewards of a satisfied customer:

- **Potential add on business**
- **Potential referrals**
- **Fewer service calls**
- **Fewer customer complaints**

You are AT&T's best representative of the quality of our products and services. AT&T values the care and professionalism you contribute to each and every installation.

USING THE RESIDENTIAL SURVEY

We recommend you use the AT&T Residential Survey as a Job Aid The Salesperson will use it first to aid in making the sale. It will give you information about the sale, the customer, the agreed-upon equipment, the locations for each component, and several other useful details.

You can then record INSTALLATION information on the survey, making it a very helpful part of the customers file. You should receive a copy of-the survey in your training class, and will be able to get future copies from your distributor.

PREPARING FOR AN INSTALLATION

1. **Obtain the floor plan and component list/work order (which are part of the AT&T Security Survey).**
2. **Call the customer to verify the time and location.**
3. **Stage equipment and tools.**

   Gather all necessary transmitters and equipment that will be needed for the installation. You may use the following chart to help determine what you need. Outline responsibilities for team.
4. **Set DIP switches, if you p refer setting them the day before rather than in the customer's home.**

EQUIPMENT LIST

LIST OF EQUIPMENT

Common Hand Tools

Slotted-Head Screwdriver

- 1/8" tip x 4" blade
- 3/16" tip x 4" blade
- 1/4" tip x 6" blade
- 5/16' tip x 8" blade

Phillips-Head Screwdriver

- No. 0 tip x 2-1/2 blade
- No. 1 tip x 3'blade
- No. 2 tii x 4"blade

Standard Hammer - 16 oz. with claw

Utility Bar - mini pry bar

Awl

Utilii Knife with Blades

Putty Knife and Spackle

Tape Measure

- 20 foot
- 100 foot

8" Level

Adjustable Wire strippers

6" Diagonal Cutters

6" Long-Nose Pliers

Staple Gun for Round-Head Staples

Round Head Staples

Vice Grips

Tool Holster

Drills and Accessories

3/8" Capacity-commercial Quality (variable speed and reversible - Preferably double-insulated)

3/8" Drill Capacity-Cordless

Spare Rechargeable Pack for Cordless Drill

Set of High-Speed Steel (H S) Bits (from 1/16" to1/2" (15 bits total) in 1/32" steps, with turned-down shanks for bii greater than 3/8"

Set of Masonry Bits-Standard (from 3/1 6 to 3/4" (7 bits total) in 1/16" steps from 3/16' to 3/8"; in 1/8' steps from 1/2" to 3/4")

Electricians Bits

- 1/4"
- 3/8"
- 1/2"

Goggles

Specialized Tools

Stud Sensor

AC Voltage and Metal

Snake (fish tape)

Rechargeable Soldering Iron

Standard Soldering Iron with 40 Watt Rating

Electrical Solder

Hardware & Supplies

Rechargeable Flashlight

Sheet Metal Screws (lengths of 1/2",3/4")

- No. 6
- No. a
- No. 10

Flat Washers

- No. 6
- No. 8
- No. 10

Plastic Wall Anchors

- No.6-8
- No. 8-10

Double-Sided Tape

Silicon Glue and Sealant

Super Glue

Solderfess Connectors Terminal Lugs- de Type, 22-18AWG)

Wire Ties

Wire Jumpers

Electrical Tape

VOM or DMM

Scanner

Portable Vacuum Cleaner

Collapsible Ladder

100 foot Extension Cord

Outlet Strip

INSTALLATION INFORMATION

GENERAL INFORMATION

Wiring

Use #22 AWG minimum for sensor wiring and digital communicator channels. Use #18 AWG minimum for AC power. All wire should be

Environment

The system is designed to work in an indoor heated environment (40 to 120 degrees F.) Battery life may be significantly reduced if components are in direct sunlight or in an unheated location.

UL Requirements

UL requires that any fire application includes either a Supervised Smoke Detector Transmitter or a Universal Transmitter configured for fire and connected to a UL-listed single station smoke detector with relay. Other types of smoke/fire sensors (suck as heat sensors) may be included in the system.

The Universal Transmitter sbould be used in its supervised mode unless it is being used as a portable device.

If the internal sounder on the Central controller or Wireless Siren/controller is silenced for intrusion alarms (DIP switch option) there should be an auxiliary sounding device in the system.

The Wheelock EH-EL2 series electronic horn should be used as a siren or horn interface.

Open loop sensor connections at any transmitter or Central Controller should be less 3 feet in length with no barriers in between, and the sensor shall be provided with a test feature.

All sensors should be UL-listed.

All sensor loops connected to any transmitter should be within the same room.

The IEI-510UL glass break detector should be used for the auxiliary output.

NOTE: The glass break sensors should be installed with a IEI-515 tester.

INSTALLATION STEPS

STEP 1
Meet the Customer - Confirm Correct Location

NOTE: See Customer Relations Section - page 2-l.

STEP 2
Do a Walk-Through with the Customer

Make sure that the customer understands what you're going to do.

Confirm any questionable placements such as keypad height with the customer.

Be sure that the customer is aware of any deviations from what the salesman has told him/her.

Give the customer a copy of the System 8000 Customer Video and ask him/her to watch it while you install the system if possible so you can answer any questions before you leave.

STEP 3
***Note any potential problems to the* customer**

Look for broken windows, scratched paint, torn wallpaper, damaged furniture, and other problems that might later he blamed on you.

Look for changes that might have occurred since the salesman was on the job.

STEP 4
Layout the job

- **Make sure that you have the equipment ready for installation**
  - **Unbox the necessary components**
  - **Lay out your cords and tools**
- **If you use multiple installers, assign specific tasks**

  Specialization speeds up installations, but each installer should know how to do all aspects of the job

STEP 5
Choose Central Controller Location

Choosing the appropriate location for the Central Controller is critical to the proper functioning of the system.

The Central Controller should be installed in the center of all the transmitters, not necessarily in the middle of the house. It should not be placed near any large metal objects, nor in the range of appliances that generate RF interference.

Typical appliances that may be sources of RF interference are:

- **Personal computers and their modems.**
- **Electronic Telephones, Telephone Controllers and Accessories**
- **Electronic Lamp Dimmers and Lighting Control Panels**
- **Baby Monitors**

In general, attention should be given to any device which could be considered computer-like or digitally-controlled.

Precautions

In the presence of these types of devices, use the following precautions:

- **Keep at least 6 feet between the source of the interference and the Central Controller.**
- **Do not group the power and telephone cords of the interference source with the power cord/antenna for the Central Controller.**
- **Avoid using the same power outlet for the Central Controller and interfering equipment.**

In some cases, interference may be generated from outside of the home. Installers should note nearby:

- **Airport**
- **Television, public service, and radio towers**
- **Large neighborhood antennas**
- **Paper mills**

AT&T should be notified in the event that the performance of the system is being degraded by an outside source of RF interference.

Note: The operation of HAM radio equipment can cause serious interference which can not be avoided by moving the Central Controller.

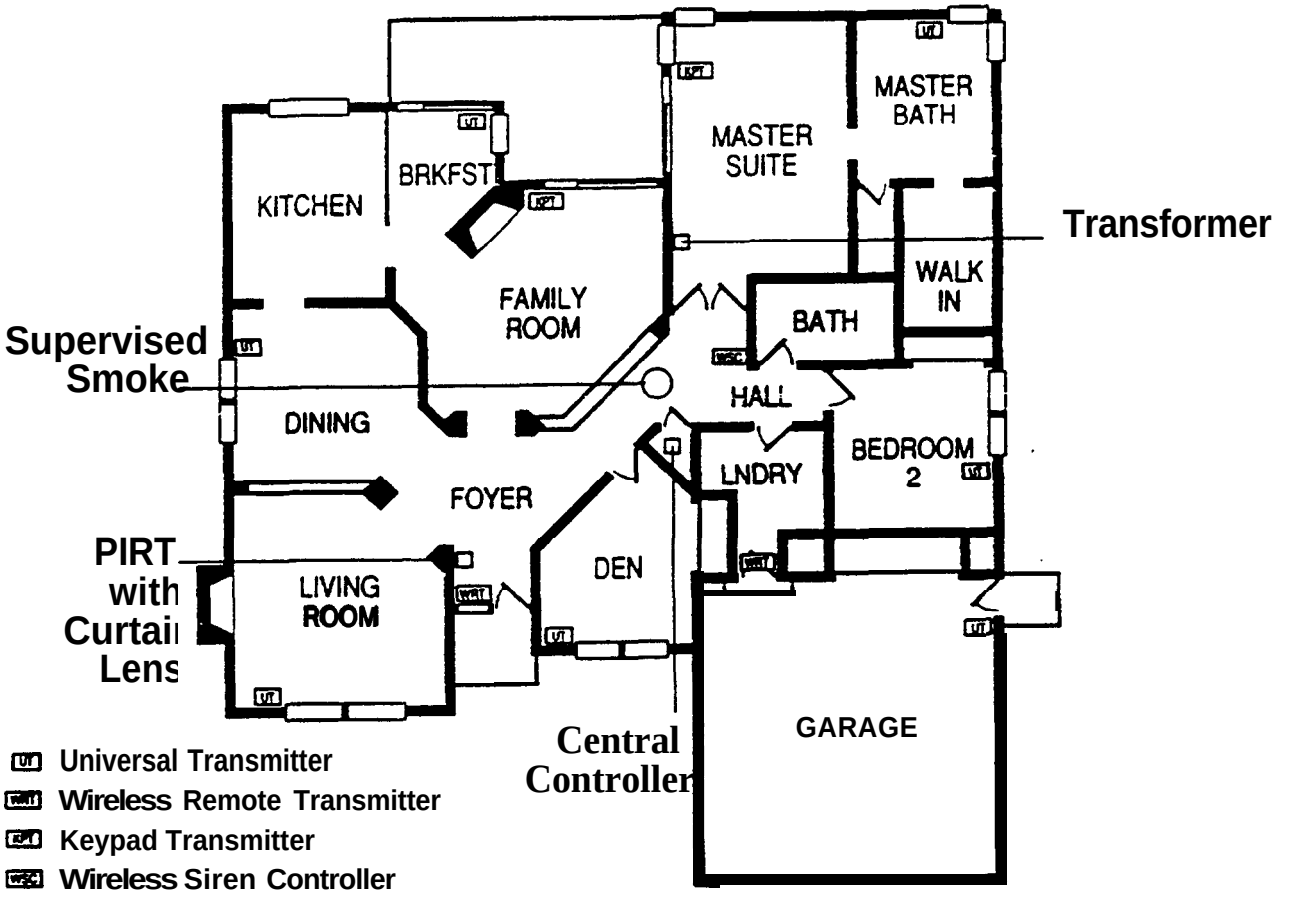
Avoid these

Avoid installing the Central Controller near these large metal objects:

- **Metal kitchen or bathroom cupboards**
- **Refrigerators**
- **Metal sinks and tubs**
- **Metal furniture**
- **Foil backed insulation**
- **Foil wallpaper**
- **Large metal ductwork**

if there are metal doors or other such moveable metal objects, test with the doors both open and closed.

Possible Central Controller and Transmitter Locations



Antenna Placement

The antenna for the Central Controller must have a minimum length of 7 feet and should be run in an area central to all the transmitter locations.

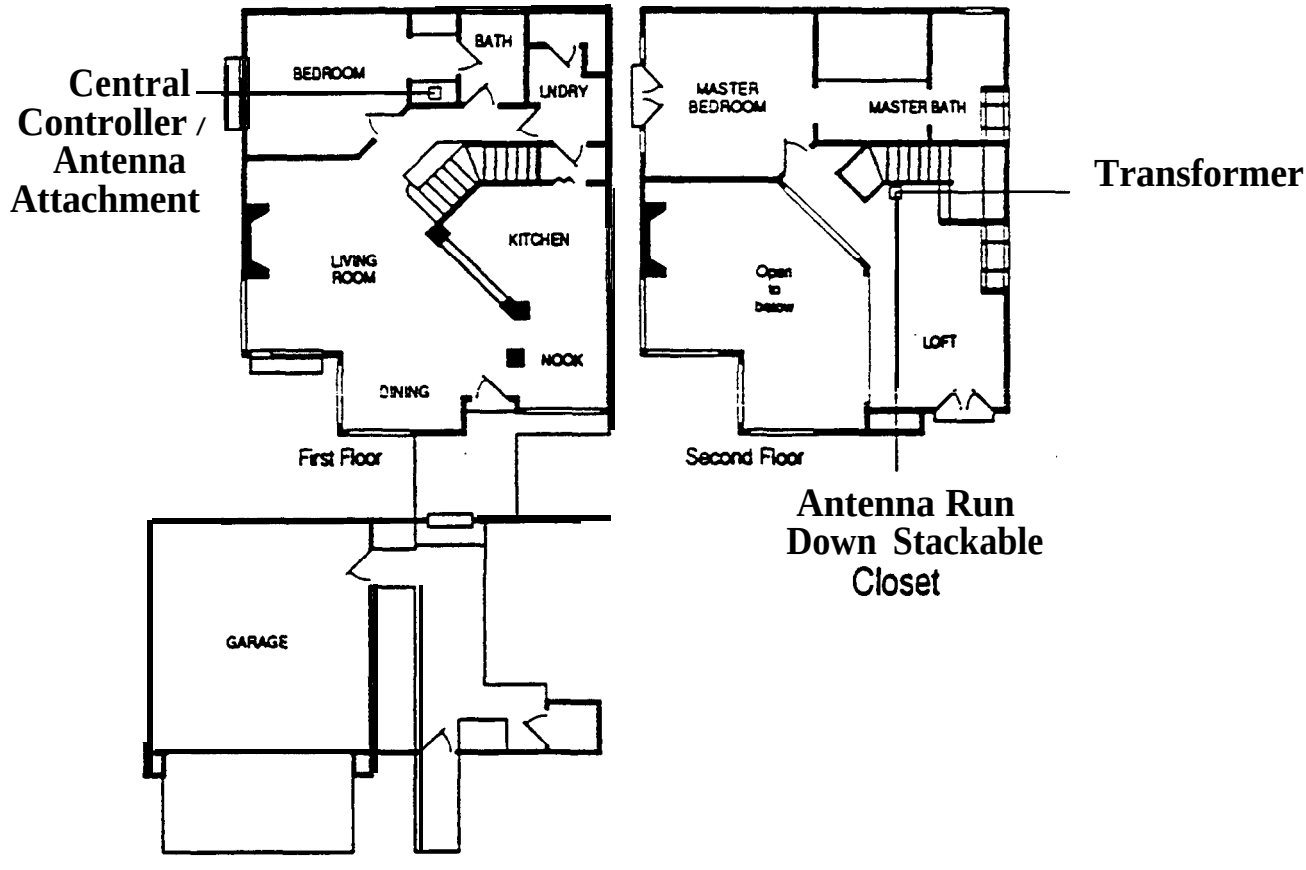
Increasing the length of the wire does not proportionally increase the effectiveness of the reception. Short increases in length run toward the weakest RF link can increase reception, however, extra long antennas can actually decrease reception. It is best to keep the antenna length less than I5 feet, if possible.

Poor reception can. occur when the antenna is mounted in an area where a large metallic object is present. These metallic objects block the RF waves. Sometimes sources of metal are obvious, such as washing machines, refrigerators, heaters, etc...Other sources are better hidden. Metal ducts, other electrical wires, and steel "I" beams can all cause trouble if the antenna is run on top of or near them.

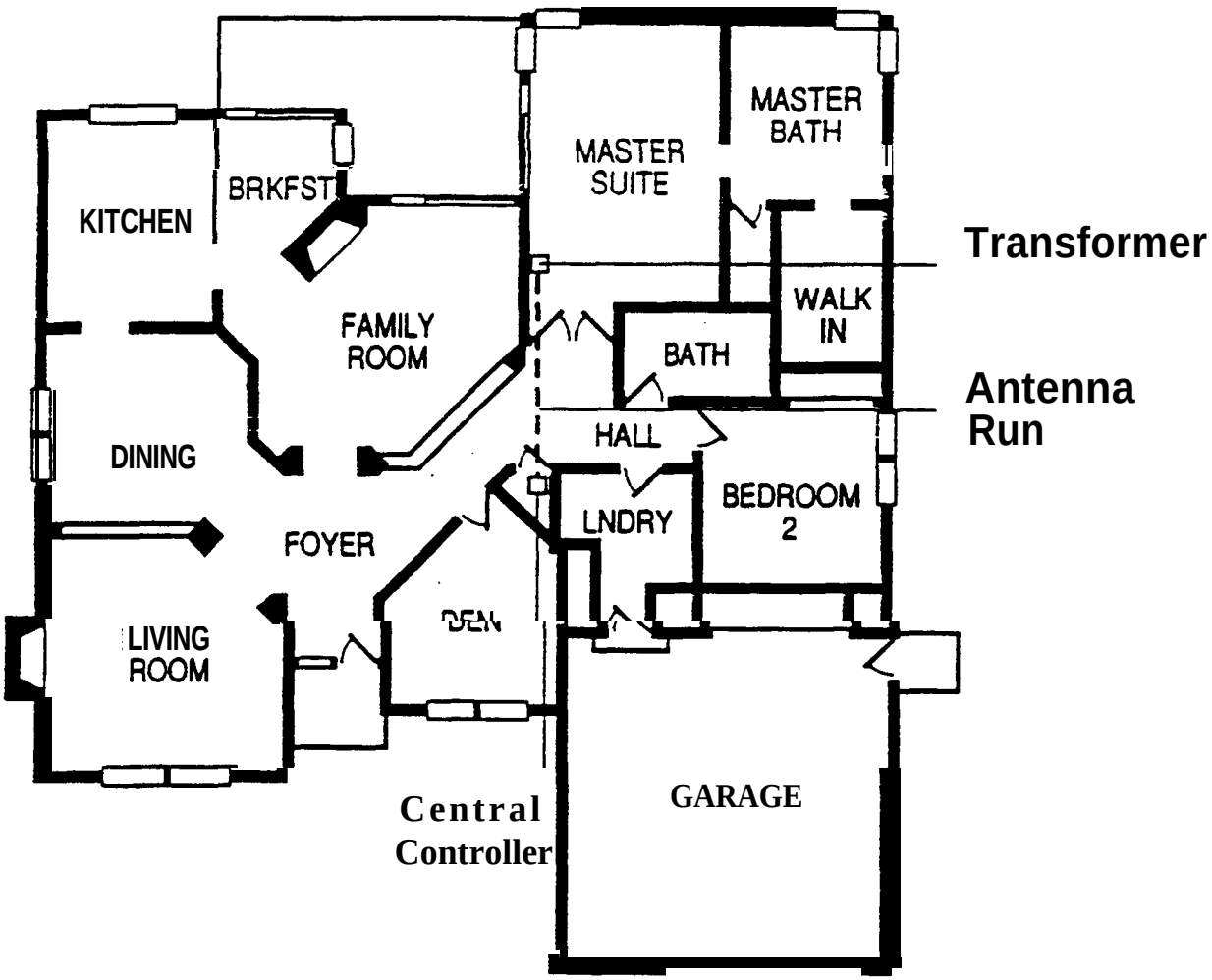
'Note: The antenna wire should not be bundled along with the phone line or any other wire. Many installers do this to make the installation look better, however, "no check in' problems may appear due to the introduction of electrical noise, such as static, into the system.

CAUTION: Don't loop antenna wire.

Possible Antenna Run in a Multi-level Home



Sample Antenna Run in a Single Level Home



BUILDING CONSTRUCTION CONSIDERATIONS

Although the 40.68 MHz band is relatively immune to most small metal objects in the home or installation site, some house have building materials that must be taken into consideration. Often, it is a combination of several of these factors that cause problems.

Some problems to watch out for.

- **Concrete and brick with metal reinforcement**

  Large amounts of concrete and brick can be troublesome, particularly in "L" - shaped homes where the signal must pass through several outer walls.

  Wire lath in plaster walls

- **Insulation**

- **Foil-backed insulation placed in inner walls may reflect RF transmissions**

- **Foil-backed wallpaper or large mirrors**

- **Stucco walls**

  Stucco is applied to a wire mesh base that may cause problems, especially in "L" - shaped homes.

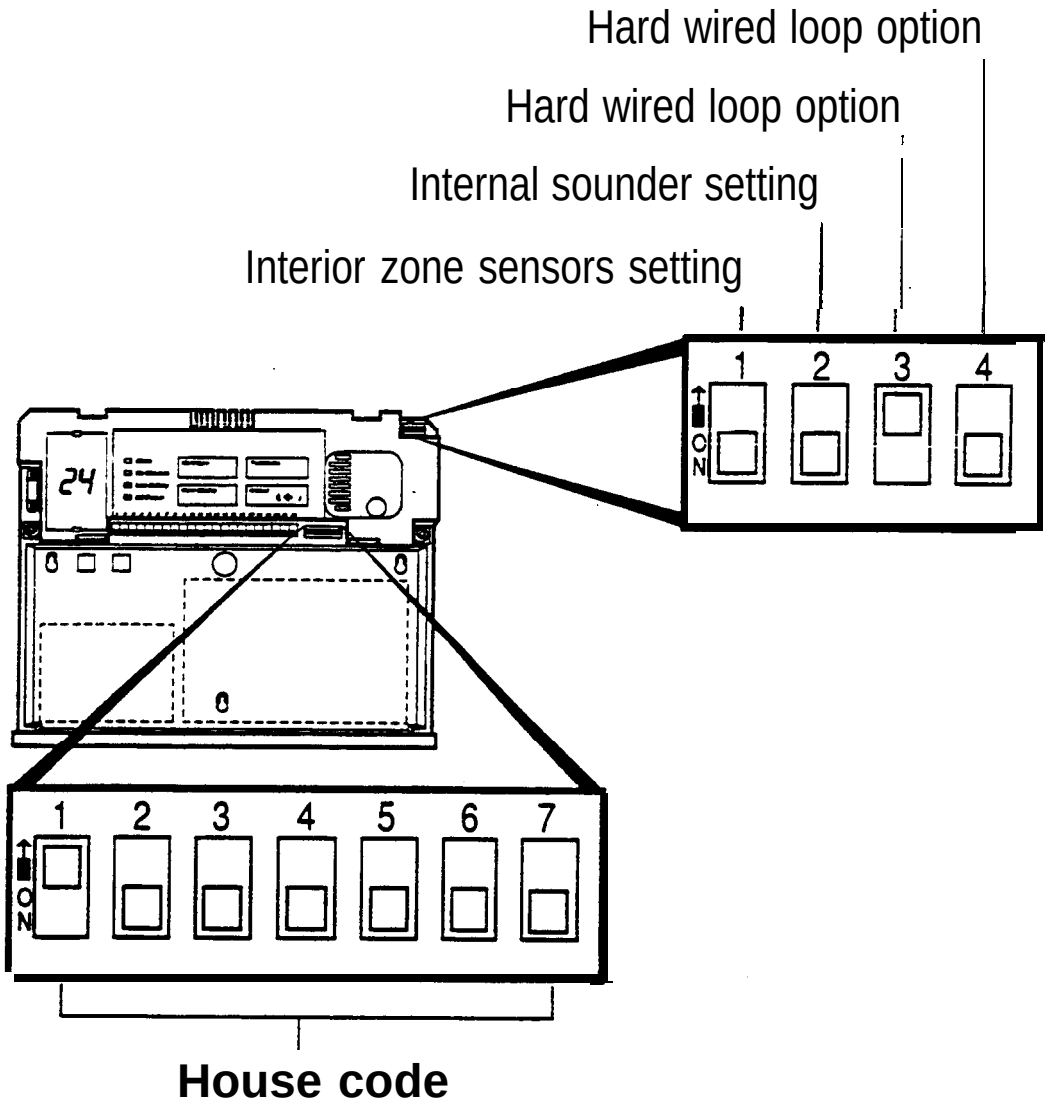
How to avoid these problems:

- **Don’t mount the Central Controller on a wall that contains metal, lath, or stucco mesh.**

Remember, it’s critical that you identify sources of possible RF interference and potential blocks to RF waves.

STEP 6
Install the Central Controller

Before you begin learning about how you will install the Central Controller, take a look at the diagram below. Here we've shown you the DIP SWITCHES which will need to be set (or programmed). You can also see by the pointers where there switches are located.



A. Program the Central Controller

1. Set the House Code DIP switches.

The HOUSE CODE is used to distinguish components in one system from those in a neighboring system. It must be the same for every component in a given system. Seven DIP switches are used to program the house code.

Caution: it would be easy to program the House Code upside down. Be sure the transmitter is correctly oriented before starting.

It's a good idea to determine the house code before going on an installation so that you can prevent duplicating neighboring numbers (especially in condominium complexes and apartment buildings).

Caution: Do not install the system with the preset default house code. The default code is set with House Code DIP switch 1 ON and House Code DIP switches 2 through 7 OFF. Also, avoid common settings such as putting all of the DIP switches either ON or OFF.

The following two pages give you a complete listing of all possible house codes. Just assign any number you choose to the current installation, AFTER YOU VERIFY THAT NUMBER IS NOT IN USE WITHIN A HALF MILE RADIUS.

House Code DIP SWITCH Combinations

House Code	House Code Dip Switch Settings 1	2	3	4	5	6	7
000	OFF	OFF	OFF	OFF	OFF	OFF	OFF
001	OFF	OFF	OFF	OFF	OFF	OFF	ON
002	OFF	OFF	OFF	OFF	OFF	ON	OFF
003	OFF	OFF	OFF	OFF	OFF	ON	ON
004	OFF	OFF	OFF	OFF	ON	OFF	OFF
005	OFF	OFF	OFF	OFF	ON	OFF	ON
006	OFF	OFF	OFF	OFF	ON	ON	OFF
007	OFF	OFF	OFF	OFF	ON	ON	ON
008	OFF	OFF	OFF	ON	OFF	OFF	OFF
009	OFF	OFF	OFF	ON	OFF	OFF	ON
010	OFF	OFF	OFF	ON	OFF	ON	OFF
011	OFF	OFF	OFF	ON	OFF	ON	ON
012	OFF	OFF	OFF	ON	ON	OFF	OFF
013	OFF	OFF	OFF	ON	ON	OFF	ON
014	OFF	OFF	OFF	ON	ON	ON	OFF
015	OFF	OFF	OFF	ON	ON	ON	ON
016	OFF	OFF	ON	OFF	OFF	OFF	OFF
017	OFF	OFF	ON	OFF	OFF	OFF	ON
018	OFF	OFF	ON	OFF	OFF	ON	OFF
019	OFF	OFF	ON	OFF	OFF	ON	ON
020	OFF	OFF	ON	OFF	ON	OFF	OFF
021	OFF	OFF	ON	OFF	ON	OFF	ON
022	OFF	OFF	ON	OFF	ON	ON	OFF
023	OFF	OFF	ON	OFF	ON	ON	ON
024	OFF	OFF	ON	ON	OFF	OFF	OFF
025	OFF	OFF	ON	ON	OFF	OFF	ON
026	OFF	OFF	ON	ON	OFF	ON	Off
027	OFF	OFF	ON	ON	OFF	ON	ON
028	OFF	OFF	ON	ON	ON	OFF	OFF
029	OFF	OFF	ON	ON	ON	OFF	ON
030	OFF	OFF	ON	ON	ON	ON	OFF
031	OFF	OFF	ON	ON	ON	ON	ON

House Code	House Code Dip Switch Settings 1	2	3	4	5	6	7
032	OFF	ON	OFF	OFF	OFF	OFF	OFF
033	OFF	ON	OFF	OFF	OFF	OFF	ON
034	OFF	ON	OFF	OFF	OFF	ON	OFF
035	OFF	ON	OFF	OFF	OFF	ON	ON
036	OFF	ON	OFF	OFF	ON	OFF	OFF
037	OFF	ON	OFF	OFF	ON	OFF	ON
038	OFF	ON	OFF	OFF	ON	ON	OFF
039	OFF	ON	OFF	OFF	ON	ON	ON
040	OFF	ON	OFF	ON	OFF	OFF	OFF
041	OFF	ON	OFF	ON	OFF	OFF	ON
042	OFF	ON	OFF	ON	OFF	ON	OFF
043	OFF	ON	OFF	ON	OFF	ON	ON
044	OFF	ON	OFF	ON.	ON	OFF	OFF
045	OFF	ON	OFF	ON	ON	OFF	ON
046	OFF	ON	OFF	ON	ON	ON	OFF
047	OFF	ON	OFF	ON	ON	ON	ON
048	OFF	ON	ON	OFF	OFF	OFF	OFF
049	OFF	ON	ON	OFF	OFF	OFF	ON
050	OFF	ON	ON	OFF	OFF	ON	OFF
051	OFF	ON	ON	OFF	OFF	ON	ON
052	OFF	ON	ON	OFF	ON	OFF	OFF
053	OFF	ON	ON	OFF	ON	OFF	ON
054	OFF	ON	ON	OFF	ON	ON	OFF
055	OFF	ON	ON	OFF	ON	ON	ON
056	OFF	ON	ON	ON	OFF	OFF	OFF
057	OFF	ON	ON	ON	OFF	OFF	ON
058	OFF	ON	ON	ON	OFF	ON	OFF
059	OFF	ON	ON	ON	OFF	ON	ON
060	OFF	ON	ON	ON	ON	OFF	OFF
061	OFF	ON	ON	ON	ON	OFF	ON
062	OFF	ON	ON	ON	ON	ON	OFF
063	OFF	ON	ON	ON	ON	ON	ON

House Code DIP SWITCH Combinations

House Code	House Code Dip Switch Settings 1	2	3	4	5	6	7
064	ON	OFF	OFF	OFF	OFF	OFF	OFF
065	ON	OFF	OFF	OFF	OFF	OFF	ON
066	ON	OFF	OFF	OFF	OFF	ON	OFF
067	ON	OFF	OFF	OFF	OFF	ON	ON
068	ON	OFF	OFF	OFF	ON	OFF	OFF
069	ON	OFF	OFF	OFF	ON	OFF	ON
070	ON	OFF	OFF	OFF	ON	ON	OFF
071	ON	OFF	OFF	OFF	ON	ON	ON
072	ON	OFF	OFF	ON	OFF	OFF	OFF
073	ON	OFF	OFF	ON	OFF	OFF	ON
074	ON	OFF	OFF	ON	OFF	ON	OFF
075	ON	OFF	OFF	ON	OFF	ON	ON
076	ON	OFF	OFF	ON	ON	OFF	OFF
077	ON	OFF	OFF	ON	ON	OFF	ON
078	ON	OFF	OFF	ON	ON	ON	OFF
079	ON	OFF	OFF	ON	ON	ON	ON
080	ON	OFF	ON	OFF	OFF	OFF	OFF
081	ON	OFF	ON	OFF	OFF	OFF	ON
082	ON	OFF	ON	OFF	OFF	ON	OFF
083	ON	OFF	ON	OFF	OFF	ON	ON
084	ON	OFF	ON	OFF	ON	OFF	OFF
085	ON	OFF	ON	OFF	ON	OFF	ON
086	ON	OFF	ON	OFF	ON	ON	OFF
087	ON	OFF	ON	OFF	ON	ON	ON
088	ON	OFF	ON	ON	OFF	OFF	OFF
089	ON	OFF	ON	ON	OFF	OFF	ON
090	ON	OFF	ON	ON	OFF	ON	OFF
091	ON	OFF	ON	ON	OFF	ON	ON
092	ON	OFF	ON	ON	ON	OFF	OFF
393	ON	OFF	ON	ON	ON	OFF	ON
094	ON	OFF	ON	ON	ON	ON	OFF
395	ON	OFF	ON	ON	ON	ON	ON

House Code	House Code Dip Switch Settings 1	2	3	4	5	6	7
096	ON	ON	OFF	OFF	OFF	OFF	OFF
097	ON	ON	OFF	OFF	OFF	OFF	ON
098	ON	ON	OFF	OFF	OFF	ON	OFF
099	ON	ON	OFF	OFF	OFF	ON	ON
100	ON	ON	OFF	OFF	ON	OFF	OFF
101	ON	ON	OFF	OFF	ON	OFF	ON
102	ON	ON	OFF	OFF	ON	ON	OFF
103	ON	ON	OFF	OFF	ON	ON	ON
104	ON	ON	OFF	ON	OFF	OFF	OFF
105	ON	ON	OFF	ON	OFF	OFF	ON
106	ON	ON	OFF	ON	OFF	ON	OFF
107	ON	ON	OFF	ON	OFF	ON	ON
108	ON	ON	'OFF	ON	ON	OFF	OFF
109	ON	ON	OFF	ON	ON	OFF	ON
110	ON	ON	OFF	ON	ON	ON	OFF
111	ON	ON	OFF	ON	ON	ON	ON
112	ON	ON	ON	OFF	OFF	OFF	OFF
113	ON	ON	ON	OFF	OFF	OFF	ON
114	ON	ON	ON	OFF	OFF	ON	OFF
115	ON	ON	ON	OFF	OFF	ON	ON
116	ON	ON	ON	OFF	ON	OFF	OFF
117	ON	ON	ON	OFF	ON	OFF	ON
118	ON	ON	ON	Off	ON	ON	OFF
119	ON	ON	ON	OFF	ON	ON	ON
120	ON	ON	ON	ON	OFF	Off	OFF
121	ON	ON	ON	ON	OFF	Off	ON
122	ON	ON	ON	ON	Off	ON	OFF
123	ON	ON	ON	ON	OFF	ON	ON
124	ON	ON	ON	ON	ON	Off	OFF
125	ON	ON	ON	ON	ON	OFF	ON
126	ON	ON	ON	ON	ON	ON	OFF
127	ON	ON	ON	ON	ON	ON	ON

2 **Set the Options DIP switches by following these guidelines:**

Switch 1 sets all system transmitters in the interior zone to either of the following

ON = interior delayed

OFF = interior instant

Switch 2 determines whether the Central Controller's internal sounder is on or off during an intrusion alarm.

ON = silent

OFF = on

Switch 3 sets the Central Controller's hardwired sensor loop to either of the following:

ON = open loop

OFF = closed loop

Switch 4 sets the Central Controller's hardwired loop zone to either of the following:

ON = interior

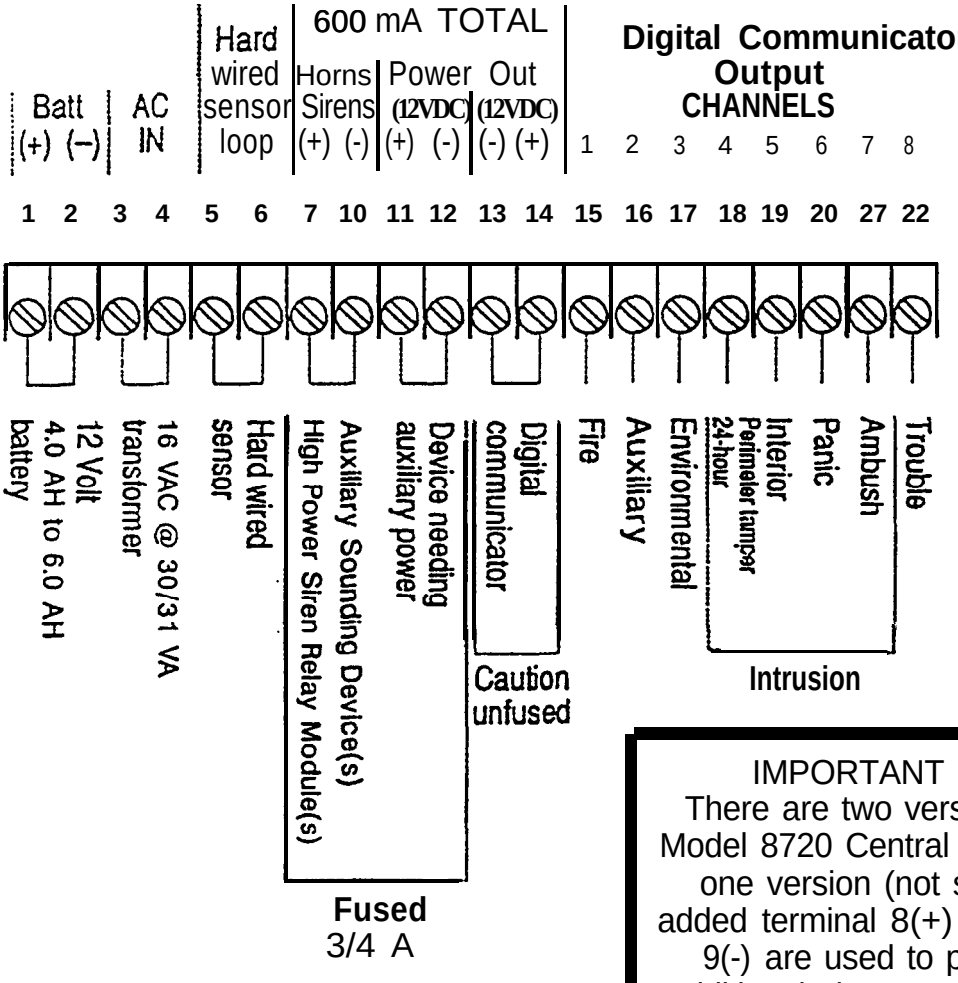
OFF = perimeter instant

B. Mount the Central Controller **Use #8 screws. PLEASE USE A SMALL LEVEL TO MAKE SURE THE HOUSING IS LEVEL BEFORE YOU TIGHTEN THE SCREWS.**

Good!Before you begin wiring in all the components, please take a look at the diagram of the Central Controller Terminal Strip on the next page. Each terminal screw is labeled for your information.

Central Controller Terminal Strip

USE UL LISTED COMPONENTS
12.0 to 14.5 VDC MAX



IMPORTANT NOTE:
There are two versions of the Model 8720 Central Controller. In one version (not shown) an added terminal 8(+) and terminal 9(-) are used to provide an additional siren output and thus duplicate the function of terminals (7+) and respectively. In the other version (shown here) terminals 8 and 9 have been eliminated.

NOTE: The 8700 Digital Communicator is probably installed. If it's not, please follow these steps.

1. **Plug the 8 wire ZONE INPUT connector into the Digital Communicator.**

2. **Plug the polarized 2 wire power connector into the Digital Communicator.**

3. **Peel off the protective backing from the two adhesive strips on the back of the Digital Communicator, Mount the Digital Communicator in the lower right hand side of the AT&T 8720 Central Controller.**

4. **Wire the Channel connector to the AT&T 8720 Central Controller.**

Color	Channel	Controller Terminal	Color	Channel	Controller Terminal
brown	1	fire (15)	green	5	interior(19)
red	2	auxiliary(16)	blue	6	panic (20)
orange	3	environmental(17)	violet	7	ambush(21)
yellow	4	perimeter, tamper (18)	grey	8	trouble (22)

5. **Connect the black wire to terminal (U) and the red to terminal (14) of the AT&T 8720 Central Controller. The Digital Communicator is circuit protected against polarity reversal. The 1 amp fast blow fuse protects against excessive power consumption.**

CAUTION: Do not connect to any other power source. Voltages greater than 16 volts can damage the Digital communicator.

CAUTION: If it is necessary to change the time of the first test report (TEST RPT TIME), apply power to the Digital Communicator only when the installation is complete. If you apply and then remove power before the communicator can transmit its first test report, the dialer may lock up. Once the dialer has reported its first test report, you can apply or remove power at any time.

6. The red LED (DS1) on the Digital communicator should be blinking to show normal operation. The LED will not light if there is no DC power. A steady LED means the Watchdog circuit has detected a processor or memory problem. Reset the watchdog with the AT&T Model 8710 Digital communicator Programmer or AT&T Model 8711 Remote Programming Package.

7. Connect terminal to earth ground. Use a minimum 14GA wire. The wire run should be as short and straight as possible. Sharp angles in the wiring run reduce the effectiveness of the ground. A good earth ground is essential for phone line lightning protection.

8. Connect the phone line cord to terminal block TB1.

T(red) = incoming Tip	T1 (grey) = House phone Tip (Seized Tip)
R (green)=Incoming Ring	R1 (brown) = House phone Ring (Seized Ring)

9. Program the Digital Communicator using the AT&T Model 8710 programmer or AT&T's model 8711 Remote Programming Package. Complete programming information is available in the Digital Communicator reference materials located at the back of this binder.

CAUTION: The Central Controller provides a total of 600 MA to be shared by the digital communicator, auxiliary sounding devices, and other auxiliary devices. Do not exceed this total.

10. Connect the Digital Communicator.

- Attach the power wires to terminals l3 and 14 of the Central Controller.
- Attach communicator channel wires to Central Controller screw terminals 15 through 22.

STEP 8
Run the Central Controller Antenna

Choose the antenna run	**Apply the information presented in the Installation Information section to the house in which you are installing the system.** **It is critical that you identify:** **- Sources of possible RF interference** **- Potential blocks to RF waves**
Identify the transfomer location	**Find a common unstitched household outlet that is close to the antenna run.**
Attach the antenna to the Central Controller	**Connect at least 7 feet of X18 AWG wire Central Controller screw terminals 3 and 4.**

STEP 9
Power Up the Central Controller

CAUTION: BEFORE YOU POWER UP, PROGRAM AT LEAST ONE WIRELESS REMOTE/TRANSMITTER SO YOU CAN IMMEDIATELY ENTER THE INSTALLER TEST MODE.

Attach the Central Controllet antenna to the transfomer

Use only a 16 VAC transformer, Comcode number 845402734.

Plug in the Transformer

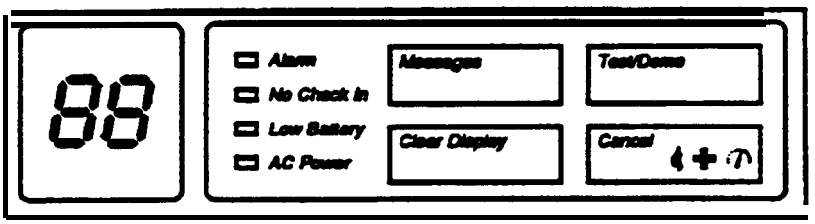
Plug the transformer into the 120 VAC, 60 Hz, wall outlet and secure to the wall using the 6-32 screw provided.

CAUTION: The transformer is fused, so be careful not to short the leads.
NOTE: Do not plug the transformer into an outlet that is controlled by a wall switch.

Verify power

Verify that the Central Controller is receiving AC power by checking to see that:

- **The AC Power LED is on.**
- **Two dashes (- -) appear in the digital display.**

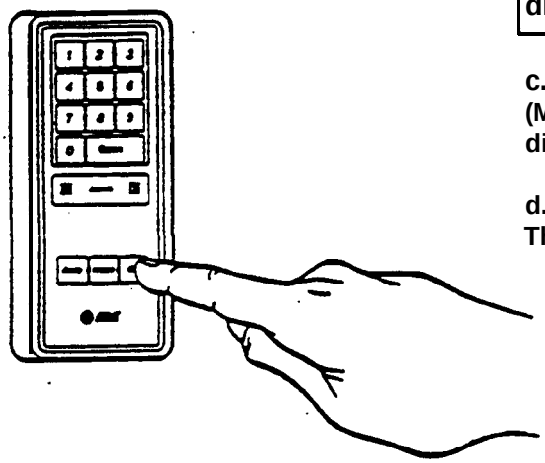


STEP 10
Enter the Installer Test Mode

a. Enter the transmitter security code and then press the OFF key to put the system in the OFF state.

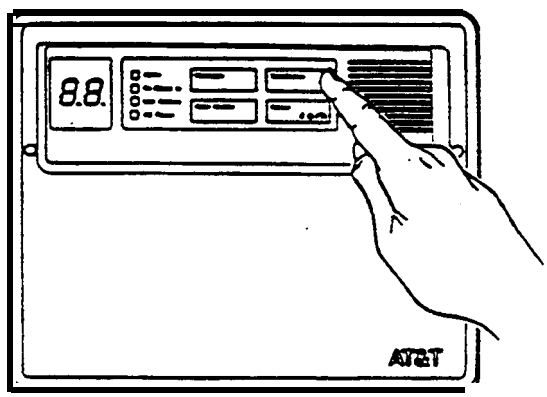
b. Press the Test/Demo key on the Central Controller. The digital display will show an '88'.

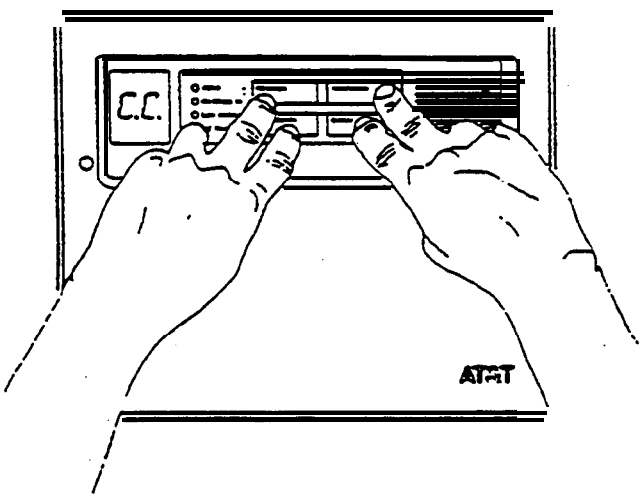
> **Note: Quickly press the Test/Demo key. If it's held down for more than 3 seconds, the Demonstration Mode will be entered instead of the installer Test Mode and a "-0." will appear in the digital display.**



c. Touch all four keys on the Central Controller at the same time (Messages, Clear Display, Cancel, and Test/Demo). The digital display will show a 'CC'. See illustration below.

d. Listen for the Installer Test Mode indiation beeps to start. There will be one beep every forty seconds.





STEP 11
Choose Transmitter Mounting Locations

Wireless Remote/Transmitter and Keypad Transmitter

The normal mounting height for the Wireless Remote/Transmitter and the Keypad Transmitter is between 4-I/2 to 5-I/2 feet for convenient access to the keypads. Avoid mounting on metal door or window frames.

Universal Transmitter

Universal Transmitters should be mounted at a height of at least four feet. A higher installation produces the best radiation pattern. Avoid mounting on metal door or window frames.

Passive Infrared Transmitter (PIRT)

Placement of the PIRT determines the detection pattern.

The PIRT may be mounted either on a flat wall or in a comer.

- **A mounting height of 7-I/2 feet provides the best combination of sensitivity and coverage.Mounting above this height increases coverage, but decreases sensitivity, while mounting below this height increases sensitivity, but decreases coverage.**

  Allow at least two inches between the unit and the ceiling to permit servicing.

- **If using the Pet Alley Mask (8560) or Pet Alley Lens (8561) mount the PIRT 4 to 4 I/2 feet above the floor.**

- **Avoid mounting PIRT where direct sunlight may strike it. The customer should be able to identify sun patterns. The unit should not beng of placed where strong sunlight will strike directly on the face of the detector. Be wary of glass-topped tables or mirrors that are capable of reflecting direct sunlight toward the PIRT. Indirect sunlight shining through windows will not trigger an alarm.**

NOTE: Avoid hot and cold air currents. Mount the unit at least three feet from strong forced-air heaters, air conditioners, or sources of drafts such as doors.The hot or cold air currents may cause false alarms, since the detector will sense a rapid change in temperature.

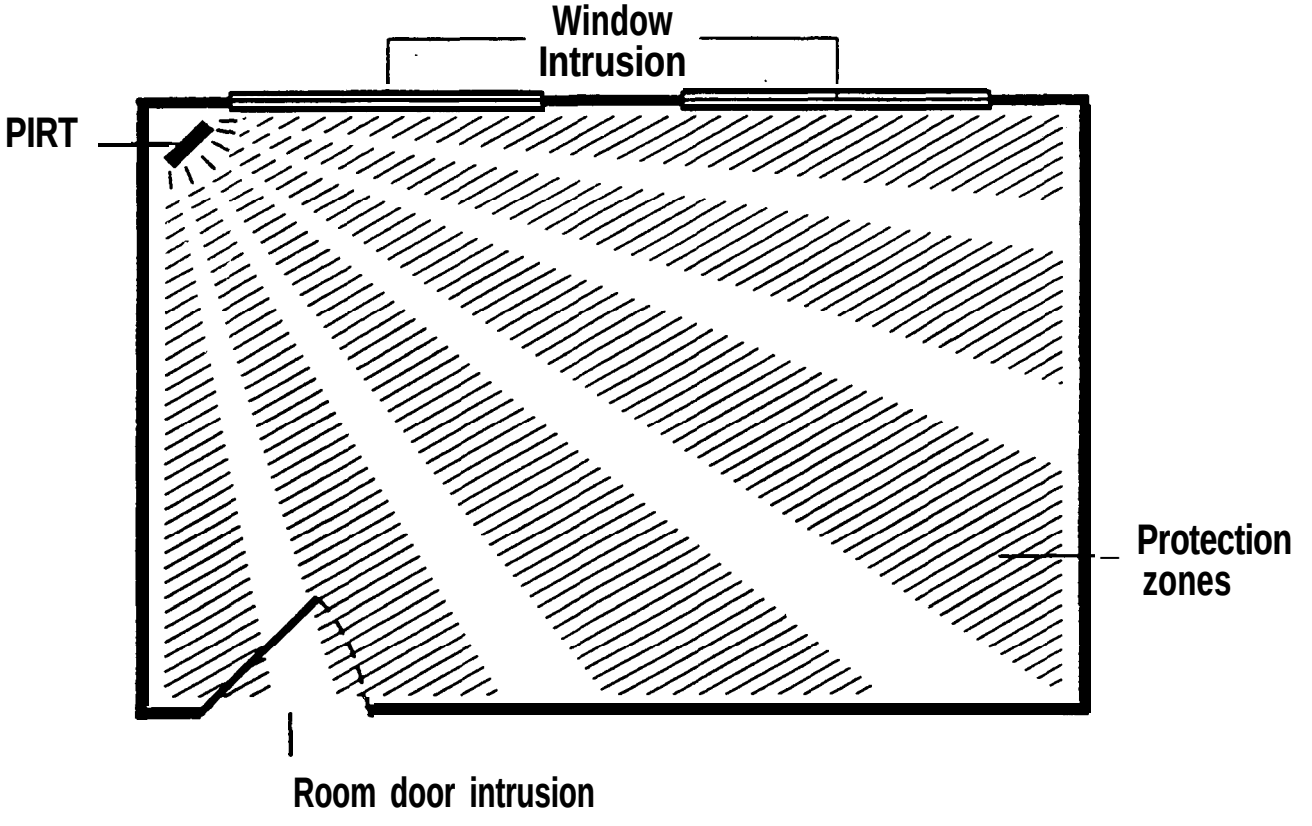
. **Choose a location at right angles to an intruder's path. The PIRT has optimal detection when placed so that an intruder's path would be directly across the detection pattern.**

. **Avoid large objects that may obstruct the lens.**

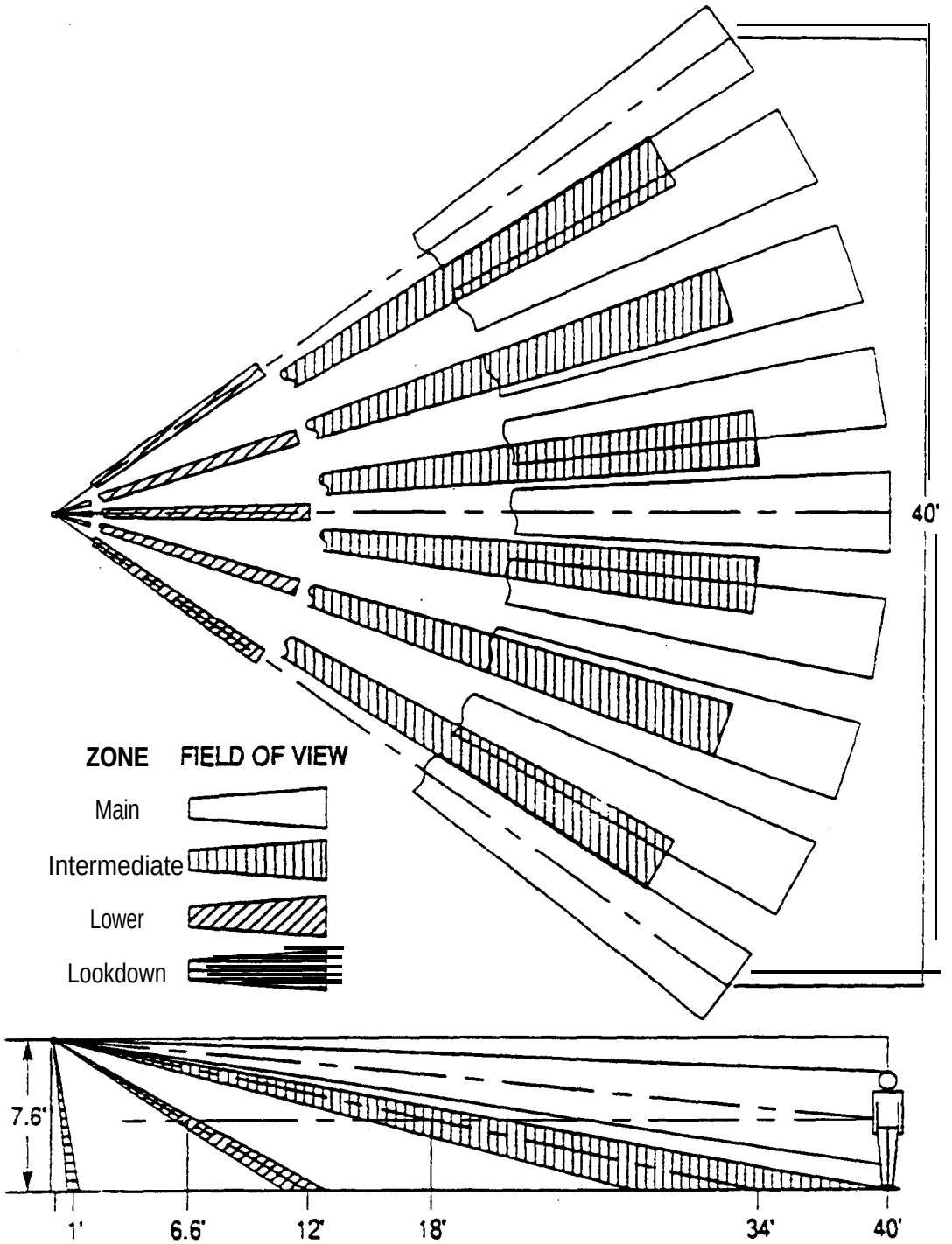
, **Choose the proper lens:**

The wide-angle lens provides wide-area coverage to protect a large space such as a room.

COMMON PLACEMENT OF THE PIRT 8560 OR 8561



PIRT WIDE-ANGLE LENS COVERAGE

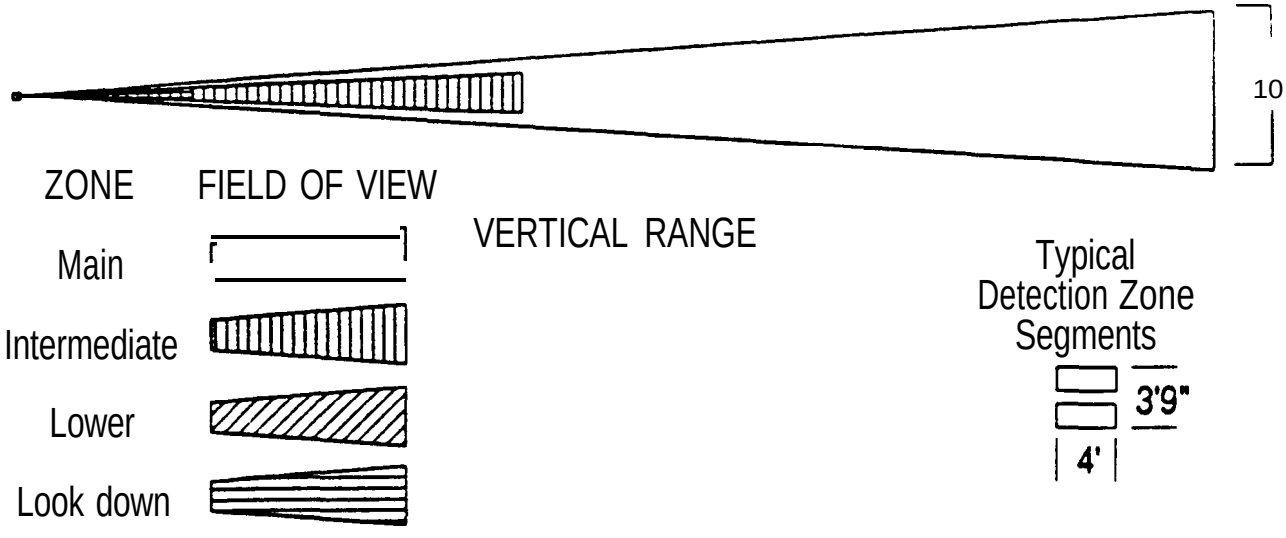


Curtain Lens

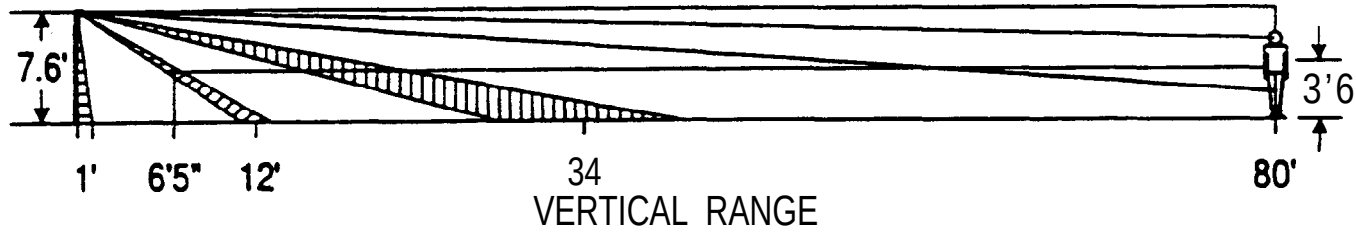
The curtain lens provides a long and narrow field of coverage for hallways and other such narrow areas.

PIRT 8560 OR 8561 CURTAIN LENS COVERAGE

TOP VIEW CURTAIN LENS



SIDE VIEW CURTAIN LENS



Supervised Smoke Detector Transmitter (SSDT)

NFPA Recommendations for Detector Installation:

The Nation Fire Protection Association's Standard 74, Section 2-l, reads as follows:

'2-1.1.1: Smoke detectors shall be installed outside of each separate sleeping area in the immediate vicinity of the bedrooms and on each additional story of the family living unit, including basements and excluding crawl spaces and unfinished attics. The provisions of 2-1.1.1 represent the minimum number of detectors required by this standard. It is recommended that the householder consider the use of additional smoke or heat detectors for increased protection for those areas separated by a door from the areas protected by the required smoke detector under 2-1.1.1 above. The recommended additional areas are: living room, dining room, bedroom(s), kitchen, attic (finished or unfinished), furnace room, utility room, basement, integral or attached garage, and hallways not covered under 2-1.1.1 above. However, the use of additional detectors remains the option of the householders.'

SSDT Installation Considerations:

- **When ceiling mounted, the SSDT should be located in the center of the room or hall, at least four inches from any wall. When the SSDT is mounted on a wall, the top of the unit should be four to twelve inches from the ceiling.**

- **Do not install the SSDT:**

  where normal ambient temperatures are above l20 degrees F. or below 40 degrees F.

  in front of air conditioners, heating vents, or other locations where normal air circulation will keep smoke from entering the detector.

Other Installation Considerations:

To minimize the risk of fire causing injury, loss of life or property, detectors should be located on every level of the home from the basement to the attic, (furnished or unfurnished), and in every sleeping area. More specifically, detectors should be located:

- **Between sleeping areas and potential sources of fire such as the kitchen, garage, basement or utility room. In homes with only one sleeping area on one floor, a detector should be put in the hallway outside the bedrooms.In single floor homes with two separate sleeping areas, two detectors are required, one outside each bedroom area.**

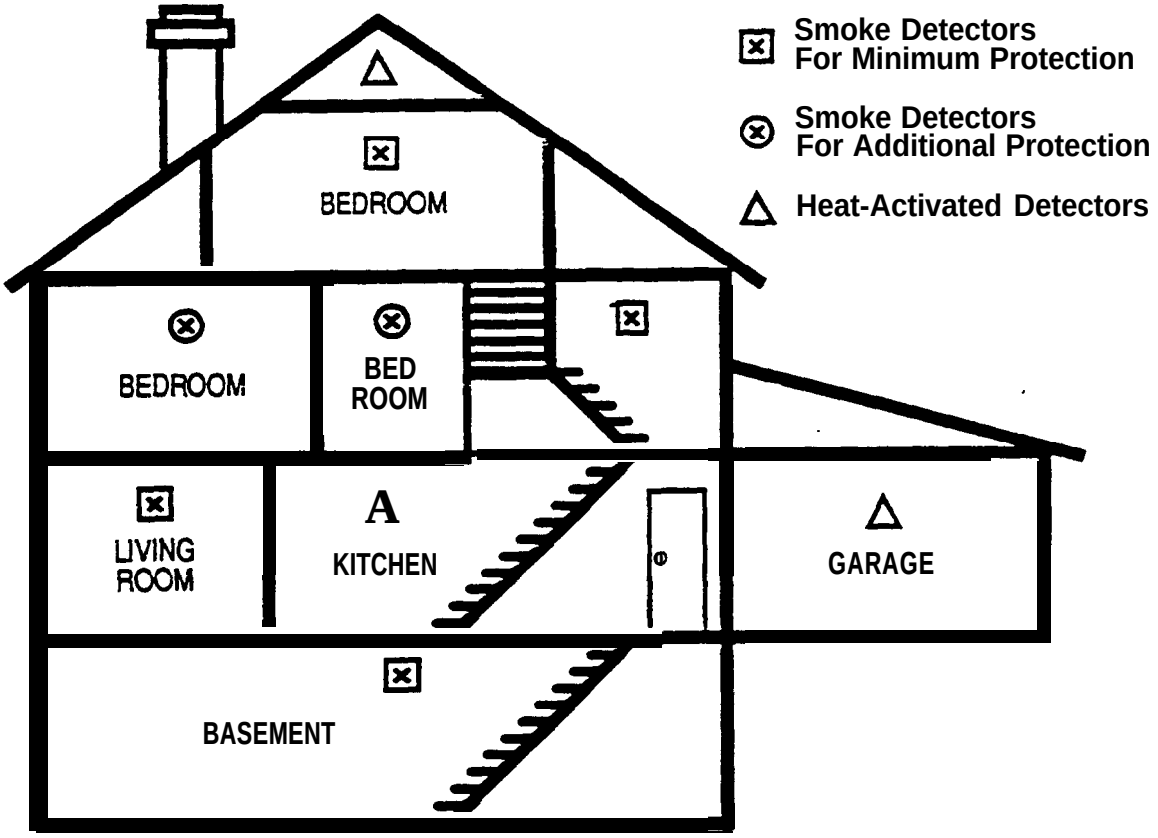
  In multilevel homes, detectors should be located in bedroom areas and at every finished level of the home. Basement level detectors should be located in the bottom of the basement stairwells. Second floor detectors should be located at the top of the first-to-second floor stairwell so long as no door obstruction blocks the path of the smoke.

- **inside every bedroom where a smoker sleeps or an electrical appliance is operated. This detector shouid be in addition to the hallway detector described above.**

- **Inside all bedrooms where people sleep with the door closed. Smoke and poisonous gases are significantly blocked by a closed door. This detector should be in addition to the hallway detector described above.**

- **At each end of a long hallway serving the bedrooms.**

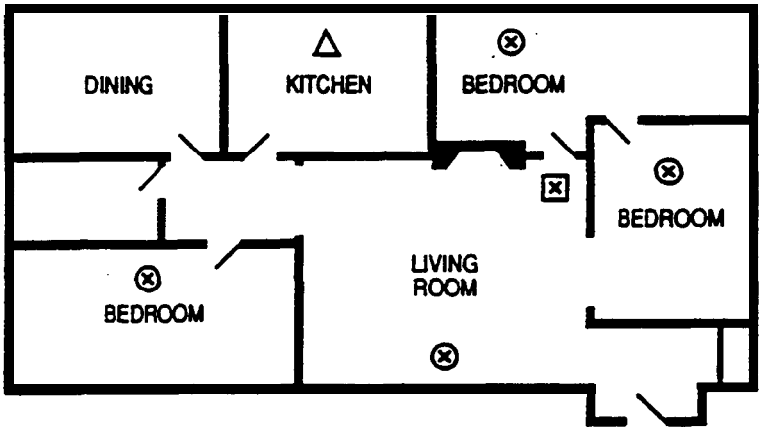
TYPICAL SUPERVISED SMOKE DETECTOR PLACEMENT IN A MULTILEVEL HOME



To avoid false or improper operation, don't install detectors in the following areas:

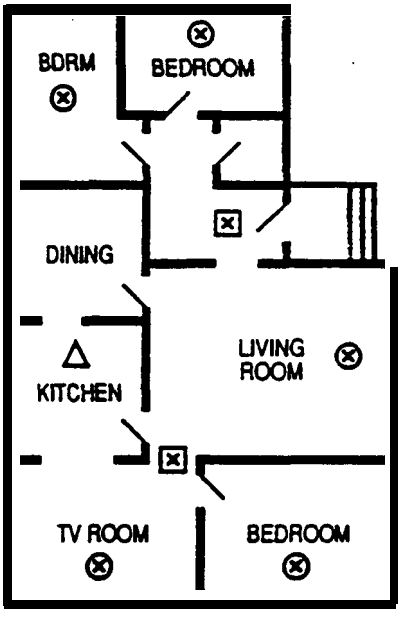
- Bathrooms. Excessive steam from a shower may cause nuisance alarms.
- Directly outside bathrooms.
- Too near forced-air ducts used for heating or air conditioning. Air movement may prevent smoke from reaching the detector.
- Near furnaces of any type. Air and dust movement and normal combustion products may cause a nuisance alarm.
- The peak of an A-frame type of ceiling. Dead air at the top may prevent smoke from reaching the detector.

Typical single floor installation one bedroom area



⊠ Smoke Detectors For Minimum Protection
⊗ Smoke Detectors For Additional Protection
A Heat-Activated Detectors

Typical single floor installation two bedroom area



STEP 12
Perform RF Link Tests on all locations Transmitter Locations

1. **Use a pencil to press either the Home, Away, or Off key on the Wireless Remote/Transmitter.**

2. **Listen for the proper number of indication beeps from the Central Controller.**

3 Beeps -	**Excellent RF Link.**
2 Beeps -	**Marginal RF link. The transmitter should be relocated.**
No Beeps -	**No RF message was received. A different location must be chosen.**

3 **Check the Central Controller to verify that the proper transmitter I.D. number appears.**

4. **Check the status LEDs on the Central Controller for more information.**

LED	LED CONDITION	MEANING
Alarm	ON	24-Hour Sensor Loop Not Secure
	OFF	24-Hour Sensor Loop Secure
No Check In	ON	RF Link Quality Is Marginal
	OFF	RF Link Quality is Excellent
Low battery	ON	Battery is Low
	OFF	Battery is OK

STEP 13
Install Sensors that Utilize the Central Controller hardwired Loop and Auxiliary Power

1. **Select sensor location.**

2. **Remove all power to Central Controller before installing sensor.**

3. **Connect hardwired loop sensor wire to the Central Controller.**

   . **Use screw terminals 5 and 6.**

4. **Connect auxiliary power wire to the Central Controller.**

   . **Use screw terminals 11 (+) and 12 (-).**

   Reconnect power to Central Controller.

6. **Test the sensor to see if it causes an alarm.**

   If not, check voltage on 11 and 12.

STEP 14
Run the Phone Line for the Digital Communicator

1. **Locate the phone line protector block.**

2. **Install an RJ3lX block. do not mount the RJ3lX inside of the Central Controller.**

   Follow all manufactured installation procedures.

3. **line fromRJ31X, possible, to the phone protector block and attach at both ends.**

4. **Attach connecting cord from the Digital Communicator to the RJ3lX block.**

NOTE: Utilize the tamper facility on the RJ3lX to protect the digital communicator connecting cord from being unknowingly disconnected. Wiie the tamper sensor to the Central Controller hardwired loop screw terminals.

5. **Test the customer's phones foi proper operation.**

NOTE: If the customer's phones are not operating properly, refer to the manufacturer installation instructions for the RJ3lX block and the digital communicator.

STEP 15
Install Optional Auxiliary Sounding Devices

CAUTION: The Central Controller provides a total of 600 MA to be shared by the digital Communicator, auxiliary sounding devices, and one other sensor that may require auxihy power. Do not exceed this total.

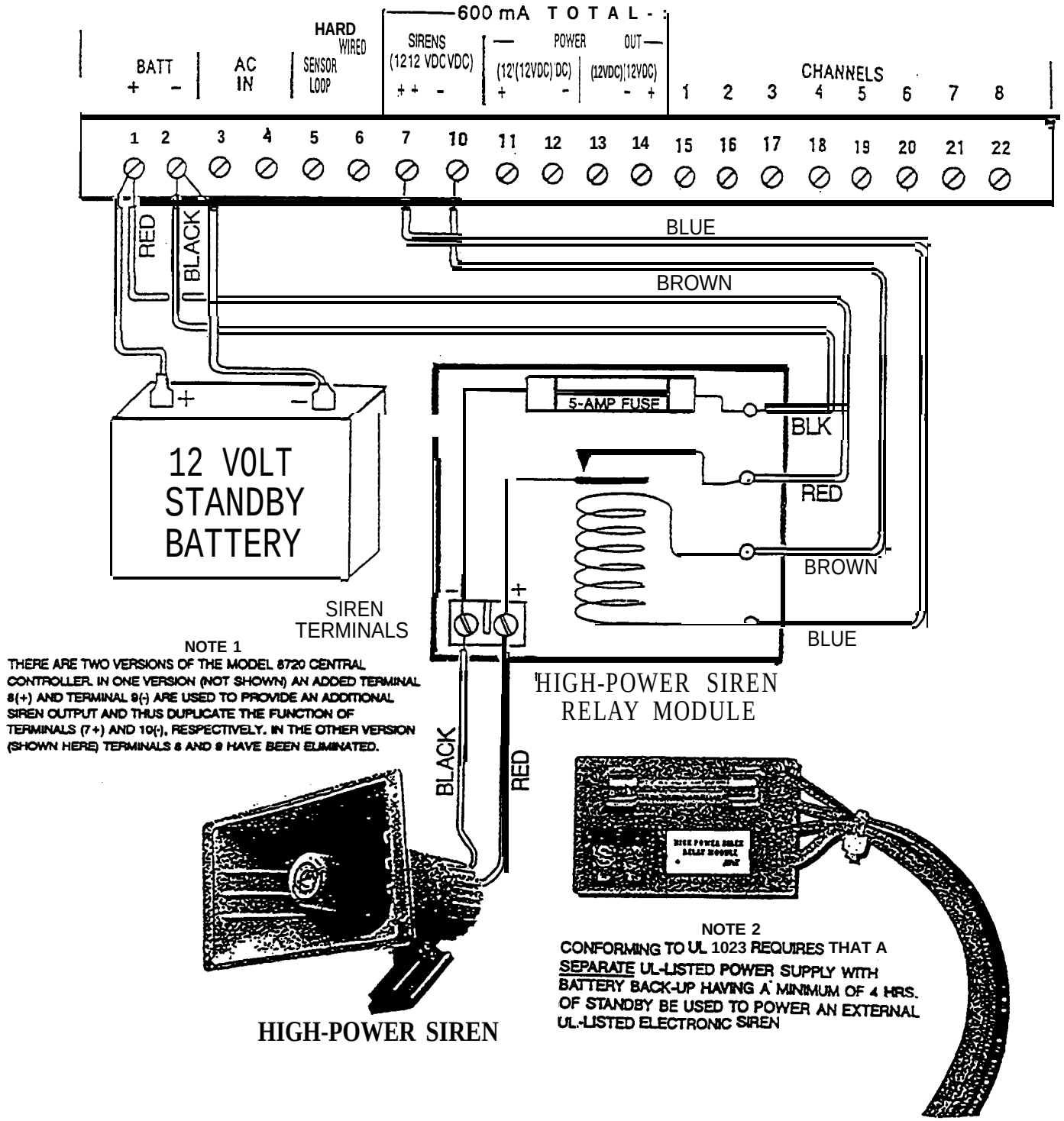
Select location for the auxiliary sounding device

Follow manufacturer installation **procedures**

Connect the auxiliary sounding device to the Central Controller

Use screw terminals 7 (+) and 10 (-) for the sounding device.

Using The High Power Siren Relay Module



NOTE 1

THERE ARE TWO VERSIONS OF THE MODEL 8720 CENTRAL CONTROLLER. IN ONE VERSION (NOT SHOWN) AN ADDED TERMINAL 8(+) AND TERMINAL 9(-) ARE USED TO PROVIDE AN ADDITIONAL SIREN OUTPUT AND THUS DUPLICATE THE FUNCTION OF TERMINALS (7+) AND 10(-), RESPECTIVELY. IN THE OTHER VERSION (SHOWN HERE) TERMINALS 8 AND 9 HAVE BEEN ELIMINATED.

NOTE 2

CONFORMING TO UL 1023 REQUIRES THAT A SEPARATE UL-LISTED POWER SUPPLY WITH BATTERY BACK-UP HAVING A MINIMUM OF 4 HRS. OF STANDBY BE USED TO POWER AN EXTERNAL UL-LISTED ELECTRONIC SIREN

If the auxiliary sounding device requires more powcr than 450 MA, then install the High Power Siren Relay Module

Use the following procedure:

1. **Peel off the tape backing.**
2. **Mount anywhere on the inside of the Central controller plastic housing. Do not mount on a metal surface.**
3. **Connect the red and black wire leads to a UL-listed external power supply.**
4. **Connect the blue wire to the Central Controller screw terminal 7(+).**
5. **Connect the brown wire to the Central Controller screw terminal 10 (-).**
6. **While the auxiliary sounding device to the High Power Siren Relay Module screw terminals (-) and 2 (+).**

NOTE Look at the following diagram showing the High Power Siren Relay Module properly connected.

STEP 16
Recheck All Transmitter Locations

See Step 12 for instructions (p. 2-36).

STEP 17
Program the Transmitters

An easy way to program the transmitters is to begin by setting the I.D. code for each one while you have them all together (in the kitchen of wherever you're working). That way, since you can look at them ail at once, you'll be sure not to give the same I.D. number to more than one transmitter.

Let's look at the I.D. Code for a moment.

Identification Codes

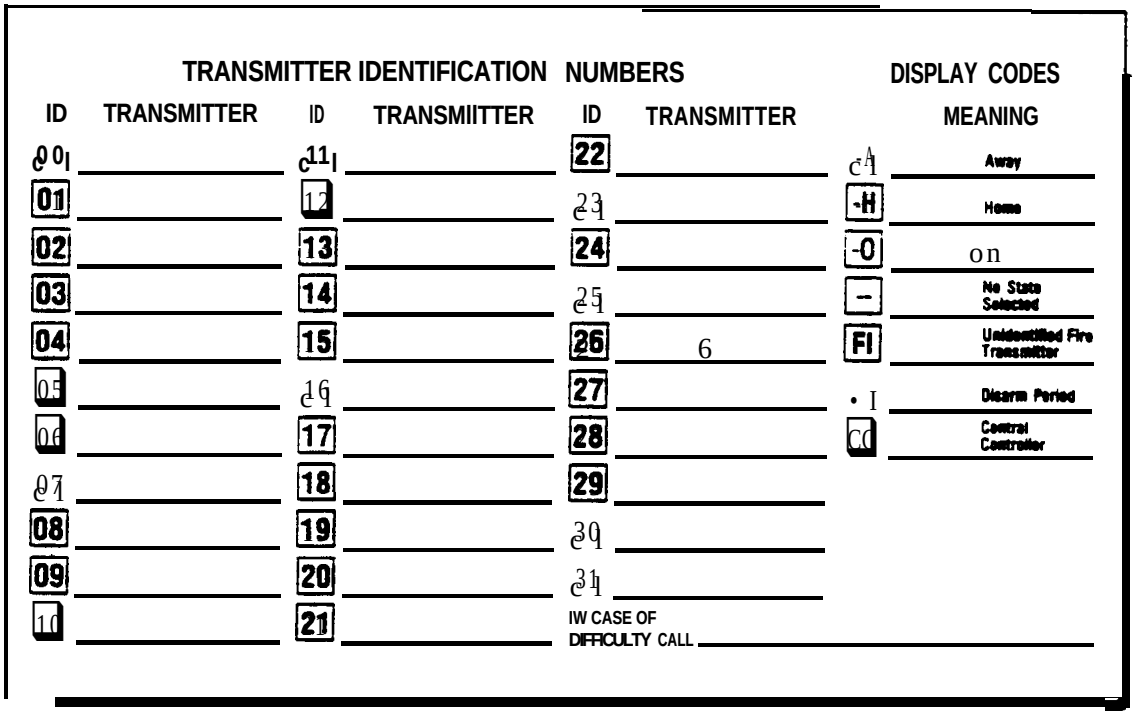
Each transmitter in the system must have a unique code number. Five DIP switches are used to program the transmitter I.D. The I.D. number is used by the Central Controller to relay trouble beeps and alarms to specific transmitters. Code numbers 00 through 31 may be used. Codes 00 through 23 are shown below.

The Supervised Smoke Detector Transmitter differs from the other transmitters in that it only has three I.D. DIP switches and only uses code numbers 24 through 31. These codes are shown on Page 62.

Transmitter ID ID Code	Switch Settings 1	2	3	4	5
00	ON	ON	ON	ON	ON
01	OFF	ON	ON	ON	ON
02	ON	OFF	ON	ON	ON
03	OFF	OFF	ON	ON	ON
04	ON	ON	OFF	ON	ON
05	OFF	ON	OFF	ON	ON
06	ON	OFF	OFF	ON	ON
07	OFF	OFF	OFF	ON	ON
08	ON	ON	ON	OFF	ON
09	OFF	ON	ON	OFF	ON
10	ON	OFF	ON	OFF	ON
11	OFF	OFF	ON	OFF	ON
12	ON	ON	OFF	OFF	ON
13	OFF	ON	OFF	OFF	ON
14	ON	OFF	OFF	OFF	ON
15	OFF	OFF	OFF	OFF	ON
16	ON	ON	ON	ON	OFF
17	OFF	ON	ON	ON	OFF
18	ON	OFF	ON	ON	OFF
19	OFF	OFF	ON	ON	OFF
20	ON	ON	OFF	ON	OFF
21	OFF	ON	OFF	ON	OFF
22	ON	OFF	OFF	ON	OFF
23	OFF	OFF	OFF	ON	OFF
24	ON	ON	ON	OFF	OFF
25	OFF	ON	ON	OFF	OFF
26	ON	OFF	ON	OFF	OFF
27	OFF	OFF	ON	OFF	OFF
28	ON	ON	OFF	OFF	OFF
29	OFF	ON	OFF	OFF	OFF
30	ON	OFF	OFF	OFF	OFF
31	OFF	OFF	OFF	OFF	OFF

Use the Zone Locator Card (shown below) to record (IN PENCIL PLEASE - neatly and accurately) the I.D. codes of each transmitter as soon as you set them.

This card should be placed in the slot at the back of the Central Controller just as soon as you finish filling it out so it will always be available for the customer's or your company's use.



TRANSMITTER IDENTIFICATION NUMBERS

ID	TRANSMITTER	ID	TRANSMIITTER	ID	TRANSMITTER
00		11		22	
01		12		23	
02		13		24	
03		14		25	
04		15		26	6
05		16		27	
06		17		28	
07		18		29	
08		19		30	
09		20		31	
10		21		IW CASE OF DIFFICULTY CALL	

DISPLAY CODES

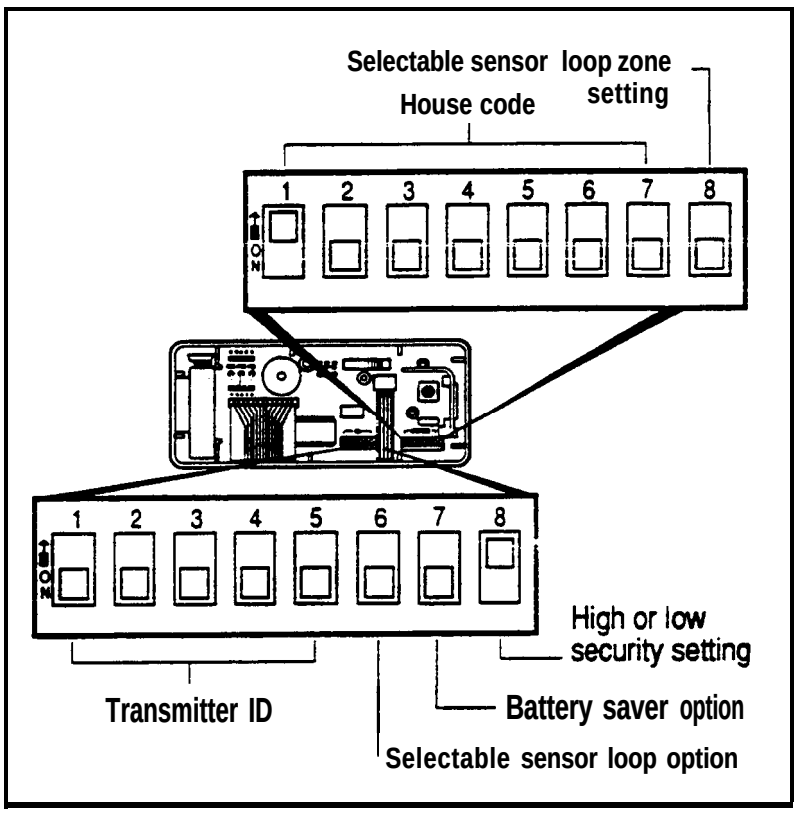
	MEANING
A	Away
-H	Home
-0	on
--	No State Selected
FI	Unidentified Fire Transmitter
• I	Disarm Period
CO	Central Controller

Prepare *the Wireless Remote/Transmitter for Programming*

1. **Remove the backplate from the Wireless Remote/Transmitter**

   Press the release tab on the transmitter backpiate.

2. **Program the transmitter.**



Wireless Remote/Transmitter DIP Switches

. Set House Code/Option DIP Switches:

Switches 1-7 set the house code.

Switch 8 sets the selectable sensor loop zone to either of the following

ON = interior

OFF = perimeter delayed

. Set ID/Options DIP switches:

Switches 1 - 5 set the transmitter identification number.

Switch 6 sets the selectable sensor loop to either of the following

ON = open loop

OFF = closed loop

Switch 7 sets the battery saver function is used when a sensor is commonly activated many times on a daily basis. When the function is set to ON, there is a minute delay between sensor-activated transmissions.

ON = Battery saver on

OFF = Battery saver off

Switch 8 sets the transmitter for either of the following:

ON = high security

OFF = low security

. **Set the security code:**

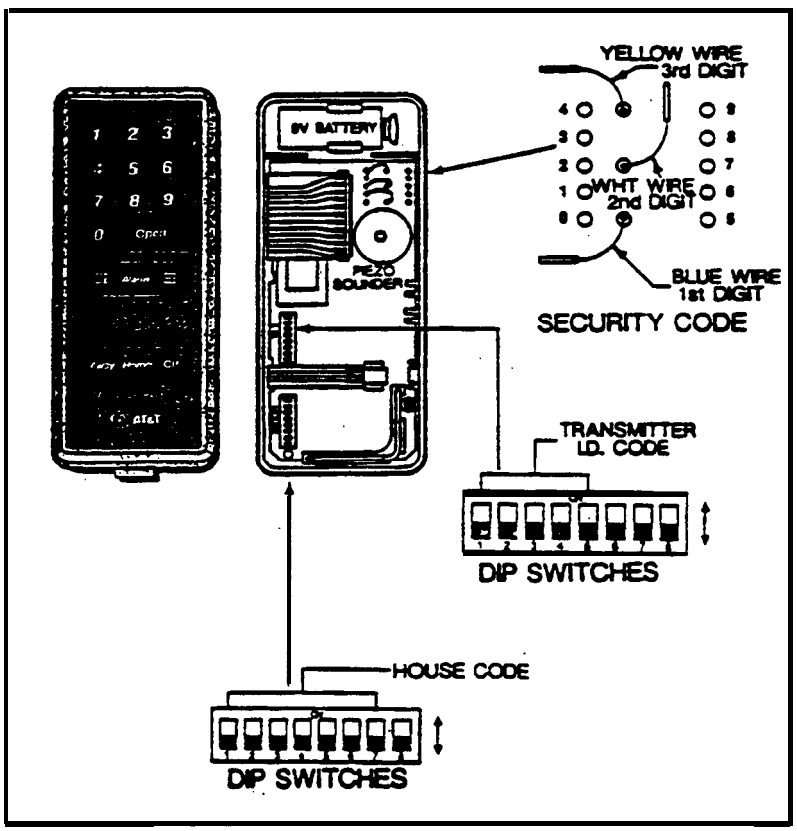
a. **Determine the 3-digit security code.**

Consult the customer before programming the security code to determine:

- **The number of different security codes to be used. For example, the customer may want a different number for each transmitter or one number to be used throughout the system.**

  Any particular numbers that the customer would like to use. A number with personal meaning may be chosen so that it will be easy to remember.

CAUTION: Don't use predictable numbers such as 123 or 468. Also, avoid numbers that involve the customers address or phone number.



Wireless Remote/Transmitter Initial Programming

b. Plug each security code post into the slot for the number desired.

Blue Wiie	=	First Number
White Wire	=	Second Number
Yellow Wire	=	Third Number

NOTE: The proper wire sequence is easy to remember since the alphabetical order of the colors is the same as the order of the numbers they represent:

1st = B 2nd = W 3rd = Y

3. Check the voltage on the 9 volt battery using your meter. It should register 9 volts. Then connect the 9 volt battery. Check the current draw.

4. Log the transmitter location on the Central Controller Zone Locator Card.

5. Temporarily place the transmitter in the area that it will be mounted. Use double-sided tape to hold it (gently- it might pull off the wall board!) if necessary.

6. Enter the Installer Test Mode, as described below.

a. Enter the transmitter security code and then press the Off key to put the system in the Off state.

NOTE: Next, quickly press the Test/Demo key (Step b.). If it is held down for more than 3 seconds, the Demonstration Mode will be entered, instead of the Installer Test Mode and a "0." will appear in the digital display.

To clear this condition: Press the Test/Demo key once to exit the Demo Mode.

b. Press the Test/Demo key on the Central Controller. The digital display will show an "88".

c. Within 2 seconds, touch all four keys on the Central Controller at the same time (Messages, Clear Display, Cancel, and Test/Demo). The digital display will show a CC".

d. Listen for the Installer Test Mode indication beeps to start. There will be one beep every forty seconds.

7. Perform the Wireless Remote/Transmitter RF link test.

a. Use a pencil to press either the Home, Away, or Off key.

b. Listen for the proper number of indication beeps from the Central Controller.

3 Beeps -	Excellent RF link.
2 Beeps -	Marginal RF link. The transmitter should be relocated.
No Beeps -	No RF message was received. A different location must be chosen.

c. Check the Central Controller to verify that the proper transmitter ID number appears.

d. Check the status LEDs on the Central Controller for more iuformatiou.

Prepare the Keypad Transmitter

1. **Remove the backplate from the Keypad Transmitter.**

   Press the release tab on the backplate.

2. **Program the Keypad Transmitter.**

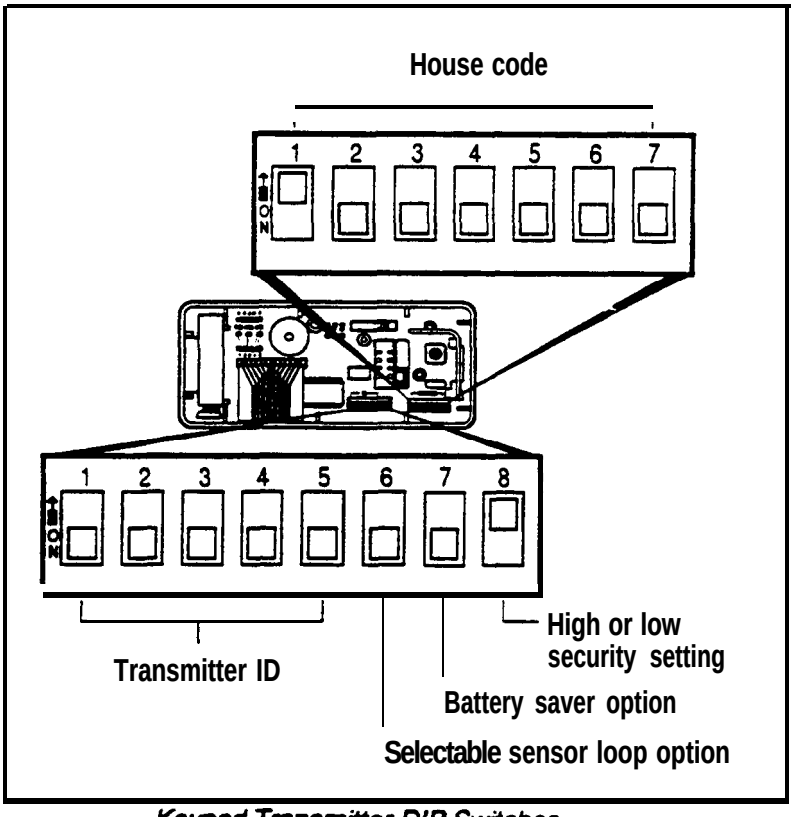
   - **Set the House Code DIP switches.**
   - **Set the ID/Options DIP switches:**

     Switches 1 - 5 set the transmitter identification number.

     Switch 6 sets the selectable sensor loop to either of the following:

     ON = open loop

     OFF = closed loop



Keypad Transmitter DIP Switches

Switch 7 sets the battery saver function to either of the following:

ON = battery saver on

OFF = battery saver off

Switch 8 should be set ON for high security to allow for the RF link test.

ON = high security

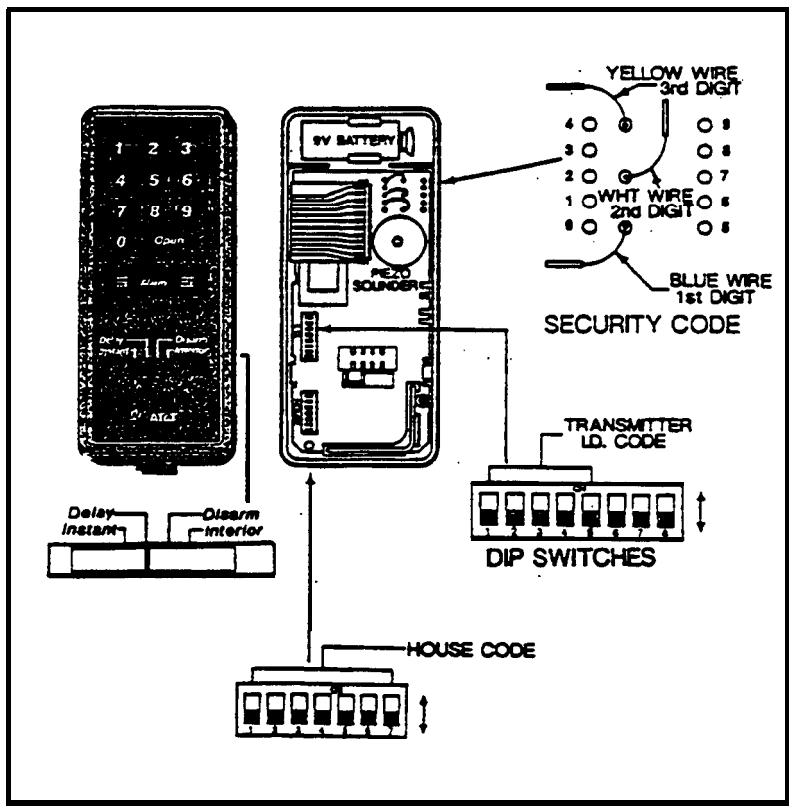
OFF = low security

_ Set the security code:

a. Determine the 3-digit security code.

b. Plug each security code post into the slot for the number desired.

Blue Wire	=	First Number
White Wiie	=	Second Number
Yellow Wire	=	Third Number



Keypad Transmitter Initial Programming

3. Test battery, under load, then connect the 9-volt battery. It should register 9 volts on your meter. Check the current draw.

4. Log the transmitter location on the central controller Zone Locator Card.

5. Temporarily place the transmitter in the area that it will be mounted. Use double-sided tape if necessary.

6. Perform the Keypad Transmitter RF link test.

   a. Use a pencil to move the slide switch.

   b. Listen for the proper number of indication beeps from the Central Controller.

   c. Check the Central Controller to verify that the proper transmitter ID number appears.

   d. Check the status LEDs on the Central controller for more information.

7. If the low security option is desired, move DIP switch 8 to the OFF position.

Prepare the Universal Transmitter

1. **Remove the backplate from the Universal Transmitter.**

   Press up on the tab at the bottom of the housing.

2. **Program the Universal Transmitter.**

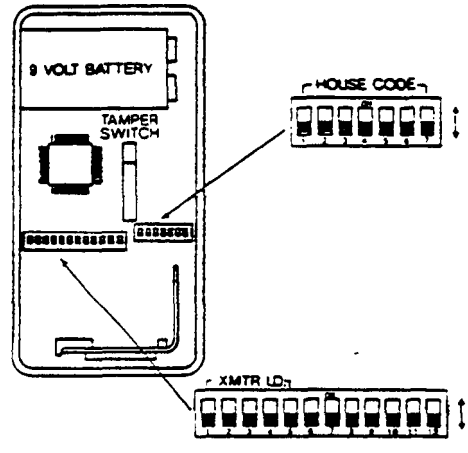
   - **Set the House Code DIP switches.**
   - **Set the ID/Options DIP switches:**

     Switches 1 - 5 set the transmitter identification number.

     Switch 6 sets the sensor loop to either of the following:

     ON = open loop

     OFF = closed loop



Switch 7 sets the battery saver function to either of the following:

ON = battery saver on

OFF = battery saver off

Switch 8 sets the sensor loop zone to either of the following:

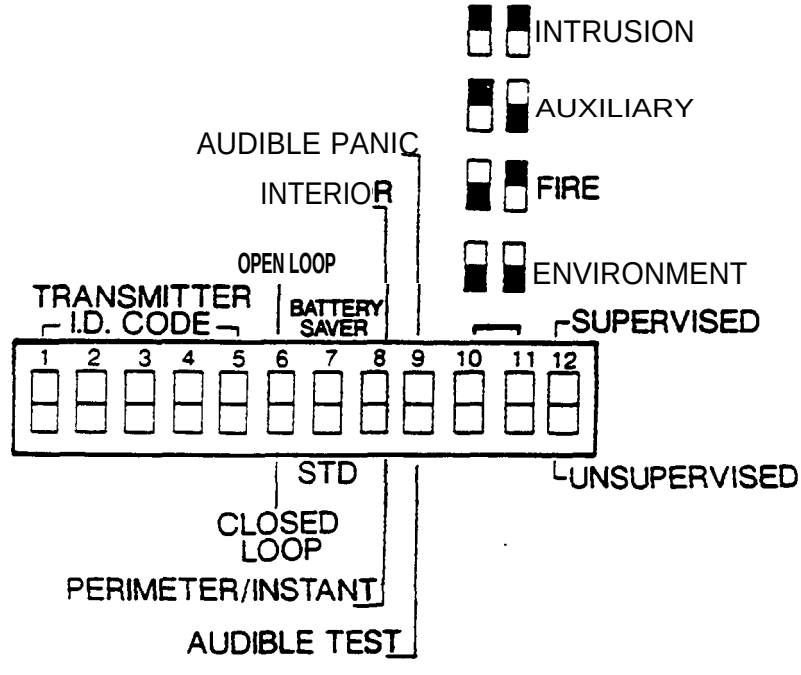
ON = interior

OFF = perimeter instant

Switch 9 sets the function of the button on the front of the Universal Transmitter. When set to "panic", pressing the button will activate an alarm When set to "test", no alarm is activated. when the button is pressed.

ON = panic

OFF = test



Switches 10 and 11 set the type of alarm that the transmitter will send. Use the chart below to set the transmitter to Intrusion, Fire, Auxiliary, or Environmental.

- Switch 12 determines whether or not the transmitter is supervised. A supervised transmitter checks in to the central Controller. An unsupervised transmitter doesnt check in, thus it can be taken off of the premises with out causing a "no check in".

  ON = supervised

  OFF = unsupervised

Type Of Alarm	Dip Switch Settings	
	10	11
Intrusion	ON	ON
Fire	OFF	ON
Auxiliary	ON	OFF
Environmental	OFF	OFF

Universal Transmitter Alarm Settings

3. Test the voltage of your 9-volt battery. Connect the battery. Check the current draw.

4. Log the transmitter location on the Central Controller Zone Locator Card.

5. Temporarily place the transmitter in the area that it will be mounted. Use double-sided tape, if necessary.

6. Perform the Universal Transmitter RF link test.

   a. Use a pencil to press the Alarm/Test button.

   b. Listen for the proper number of indication beeps from the Central Controller.

   C. Check the Central Controller to verify that the proper transmitter ID number appears.

   d. Check the status LEDs on the Central Controller for more information.

Prepare the Passive Infrared Transmitter (PIR T)

1. **Verify the proper location for the PIRT.**

   Apply the information presented in the Pre-Installation section on PIRT placement considerations.

2. **Remove PIRT housing.**

   Press the release tab on the top to the housing.

3. **Carefully remove the circuit board from the housing.**

   Press the circuit board release tabs.

4. **Choose the proper lens for the PIRT and change the lens if necessary.**

   Remember that the PIRT is shipped with the wide-angle lens pre-installed

   Follow these steps to change the lens.

   a. **Press outward on the vertical supports which hold the lens brackets.**

   b. **Remove the lens brackets and the old lens.**

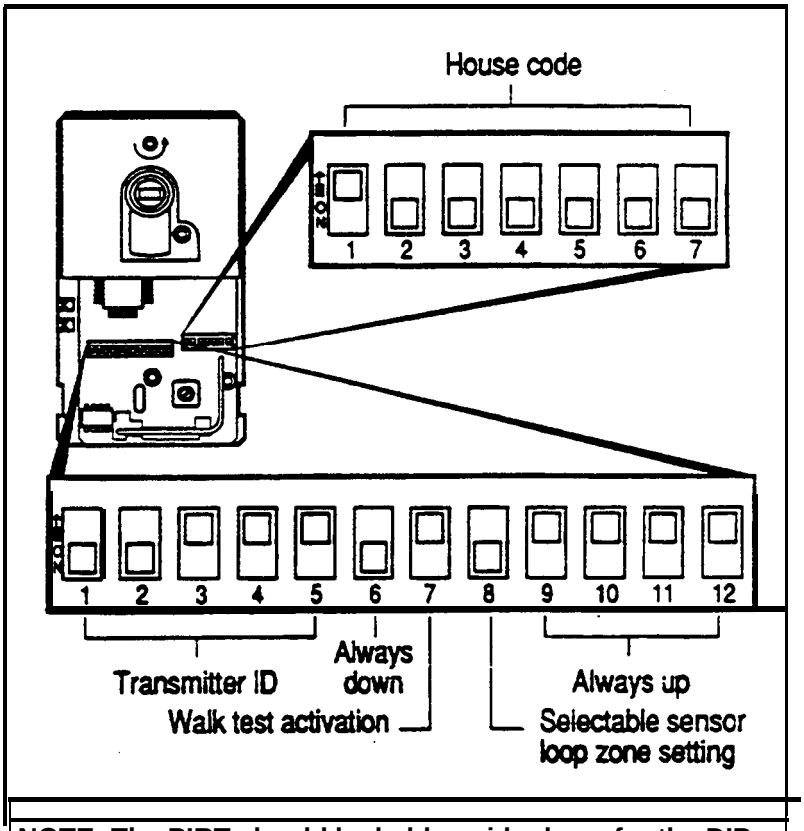
   c. **Place the new lens under the top and bottom tabs.**

   d. **If you're using a 8560 and want to install the Pet Alley Mask:**

      - **Place the look-down mask over the look down lens.**
      - **Place the top mask over the regular lens and under the top and bottom tabs. (If you're using a 8561, install the Pet Alley Lens)**

   e. **Replace lens brackets carefully.**

5. Program the PIRT.



NOTE: The PIRT should be held upside-down for the DIP switches to be oriented properly for programming.

- **Set House Code DIP switches.**
- **Set ID/Options DIP switches:**
  - **Switches 1 - 5 set the transmitter identification number.**

    Switch 6 should be placed in the OFF position.

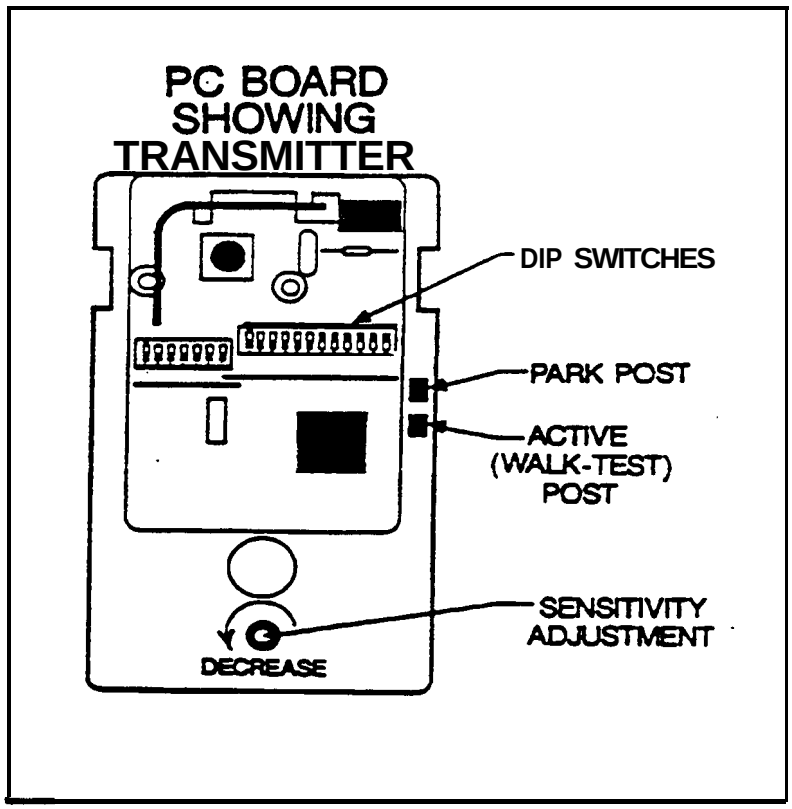
    Switch 7 should be placed OFF in order to set the transmitter for walk-test operation.

Switch 8 sets the transmitter sensor zone to either of the following:

ON = interior

OFF = perimeter instant

Stitches 9 - 12 should be set to the ON position.



- *"Active" Post on PIRT Circuit Board*

6. **Test the battery voitage. It should be 9 volts. Connect the batteries. Check the current draw.**

7. **Log the transmitter on the Central Controller Zone Locator Card.**

8. Activate the LED by connecting the walk-test LED plug to the "Active" post on the PIRT circuit board.

9. Check to see that DIP switch 7 is set in the OFF position.

10. Temporarily mount the PIRT with double-sided tape.

11. Perform the PIRT RF link test.

    a. Slowly move your hand in front of the PIRT until the walk-test LED comes on.

    b. Listen for the proper indication beeps from the Central Controller.

    c. Check the Central Controller to verify that the proper transmitter ID number appears.

    d. Check the status LEDs on the Central Controller for more information.

12. Fill unused screw holes to keep out bugs and dust.

Prepare the Supervised Smoke Detector Transmitter

1. **Verify the proper location for the Supervised Smoke Detector Transmitter.**

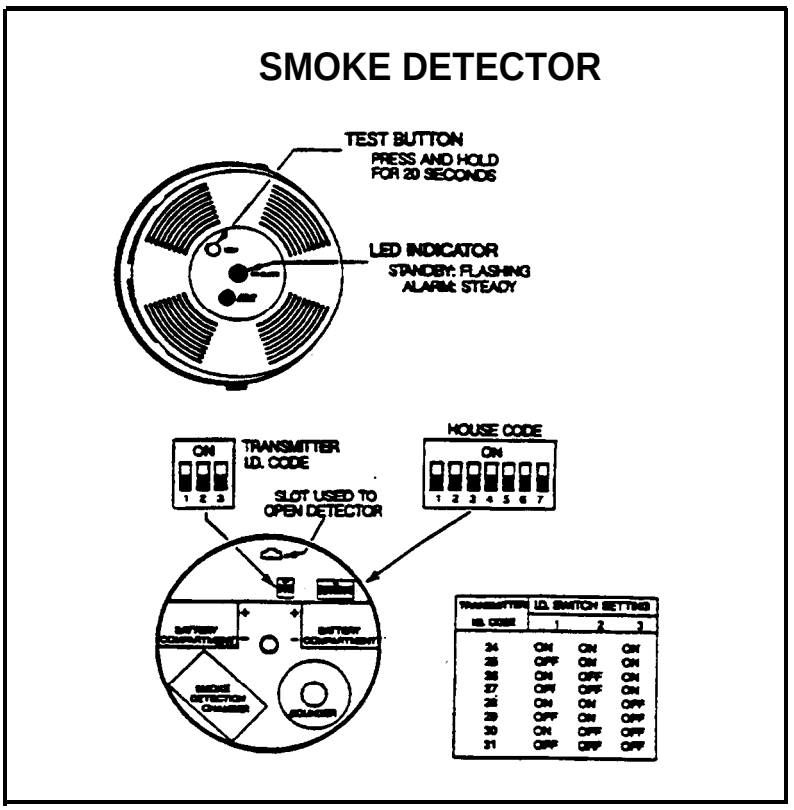
   Use the information presented in the Installation Information section to help determine the correct location.

2. **Open the detector front housing.**

   Use a screwdriver to bend the release tab that can be accessed through a small hole in the backplate.

3. **Program the detector.**

   - **Set the House code DIP switches.**
   - **Set the I.D. DIP switches.**



Use the chart below to set the 3-DIGIT smoke detector identification number. Only I.D. numbers 24 through 31 are available for the Smoke Detectors.

ID Transmitter ID Code	Switch Setting		
1		2	3
24	ON	ON	ON
25	OFF	ON	ON
26	ON	OFF	ON
27	OFF	OFF	ON
26	ON	ON	OFF
29	OFF	ON	OFF
30	ON	OFF	OFF
31	OFF	OFF	OFF

4. Close the detector front housing.

5. Check the voltage on the batteries then connect them. Check the current draw.

NOTE: Use only Duracell NM 1604 batteries.

6. Log the transmitter location on the Central controller Zone Locator Card.

7. Temporarily place the detector in the area it will be mounted.

8. Perform the Supervised Smoke Detector Transmitter RF link test.

a. Use a pencil to press the Test button on the detector. Hold it down until you hear an alarm tone (approximatety 20 seconds).

b. Listen for the proper number of indication beeps from the Central Controller.

C. Check the Central Controller to verify that the proper transmitter I.D. number appears.

d. Check the status LEDs on the Central Controller for more information..

STEP 18
Mount the Transmitters

Mount Wireless Remote/Transmitter

1. **Mount the sensor to be used with the transmitter. (Follow the sensor manufacturer's instructions.)**

2. **Thread sensor wires through the Wireless Remote/Transmitter backplate.**

   Too much wire can cause the housing to seat improperly and cause false alarms.

3. **Mount the backplate.**

   Be careful not to over-tighten the backplate screws. False alarms may result because the housing seats improperly against the tamper switch.

4. **Connect sensor wires to the screw terminals on the backplate for the desired type of sensor loop.**

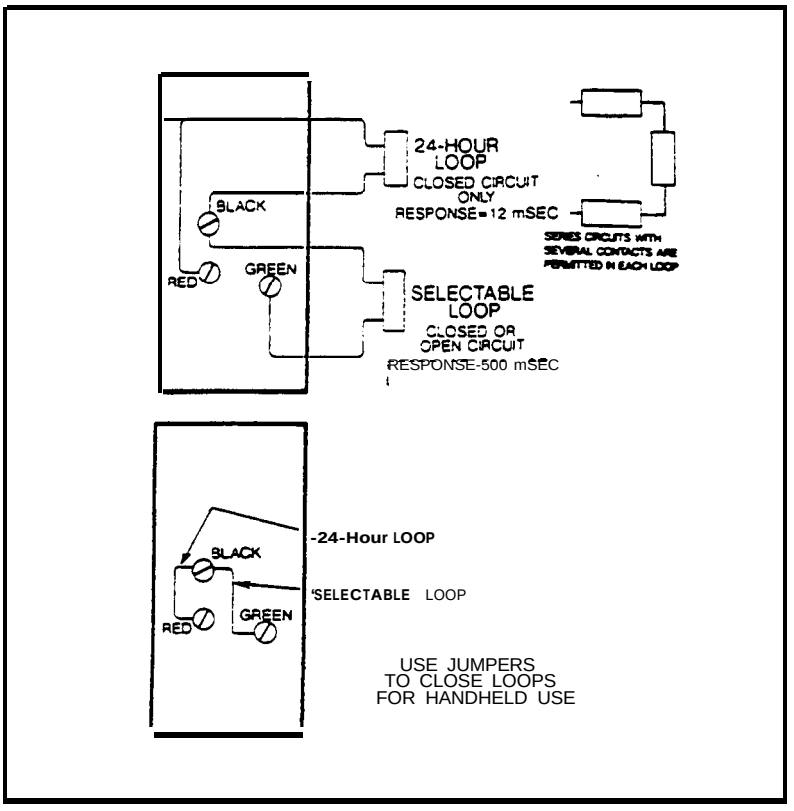
   If wiring the 24-hour sensor loop, the preinstalled jumper must be removed. Otherwise, make sure the 24-hour jumper is firmly installed.

5. **Connect the snap caps or spade lug wires to the screw terminals.**

   The snap caps and wires are color coded for each terminal.

CAUTION: The wires should not end up on top of (or under) the battery or on the tamper switch - could cause false alarms.

6. **Attach the front housing.**



Wireless Remote/Transmitter Sensor Loop Option

7. **Perform the sensor activation RF test.**

This test is used to verify the correct functioning of the sensor and the RF link of the mounted transmitter.

a. Activate the sensor.

b. Listen for the proper number of beeps from the Central Controller.

c. Check the Central Controller to verify that the proper transmitter I.D. number appears.

d. Check the status LEDs on the Central Controller for more information.

Mount Keypad Transmitter

1. **Mount the sensor to be used with the transmitter.**

Follow the sensor manufacturer's instructions.

2. Thread sensor wires through the Keypad Transmitter backplate.

3. Mount the backplate.

Be careful not to over-tighten the backplate screws.

4. Connect sensor wires to the screw terminals on the backplate for the desired type of sensor loop.

5. Connect the snap caps or spade lug wires to the screw terminals.

6. Attach the front housing.

7. **Perform the sensor activation RF test.**

   a. **Activate the sensor.**

   b. **Listen for the proper number of beeps from the Central Controller.**

   c. **Check the Central Controller to verify that the proper transmitter I.D. number appears.**

   d. **Check the status LEDs on the Central Controller for more information.**

Mount Universal Transmitter

1. **Mount the sensor to be used with the transmitter.**

   Follow the sensor manufacturer's instructions.

2. **Thread sensor wires through the Universal Transmitter backplate or choose portable backplate for hand-held use.**

3. Mount the backplate.

   Be careful not to over-tighten the backplate screws.

4. Connect sensor wires, if used, to the screw terminals on the backplate.

5. Connect the snap caps or spade lug wires to the screw terminals.

6. Attach the front housing.

7. Perform the sensor activation RF test.

   a. Activate the sensor.

   b. Listen for the proper number of beeps from the Central Controller.

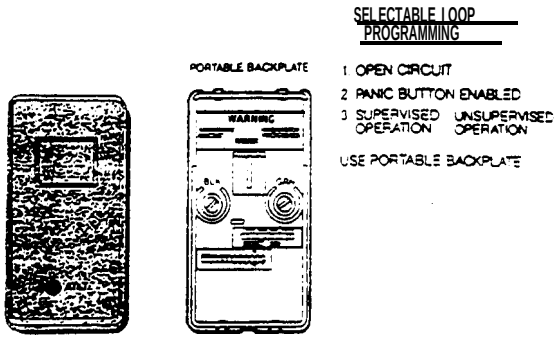
   c Check the Central Controller to verify that the proper transmitter I.D. number appears.

   d. Check the status LEDs on the Central Controller for more information.

Universal Transmitter Applications

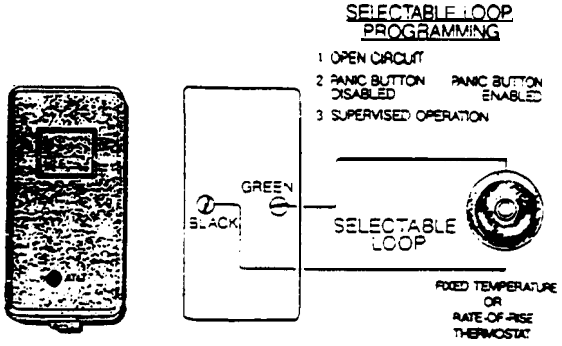
UNIVERSAL TRANSMITTER SENSOR LOOP:

PANIC APPLICATiONS



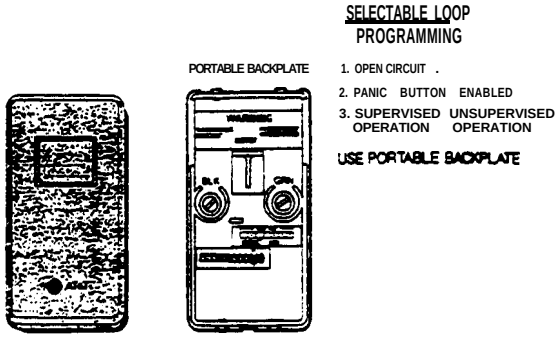
UNIVERSAL TRANSMITTER SENSOR LOOP:

FIRE APPLICATIONS



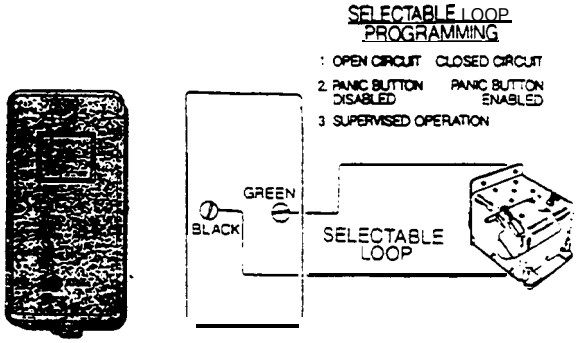
UNIVERSAL TRANSMITTER SENSOR LOOP:

AUXILIARY APPLICATIONS



UNIVERSAL TRANSMITTER SENSOR LOOP:

ENVIRONMENTAL APPLICATONS



Mount Passive Infrared Transmitter (PIRT)

1. Mount the PIRT backpiate with #6 screws. For a corner mount, use the mounting guides on the angled sides of the backplate.

2. Attach the front housing to the backplate. Allow the unit several minutes to stabilize.

3. Walk test the PIRT to verify its coverage.

   a. Reduce the sensitivity of the PIRT by using the sensitivity adjustment knob on the circuit board. (8560 only)

      Turn the knob counterclockwise. (8560 only)

   b. Walk in several different paths across the detection area. (For 8561 there is no sensitivity adjustment)

   c. Listen for the proper number of indication beeps.

   d. Watch to see that the reh walk-test LED light comes on when you move.

   e. Check to see that the walk-test LED doesnt light when you stand out of range of the detection zone.

   f. Adjust the sensitivity up as necessary. (8560 only)

4. Park the LED.

   a. Disconnect the LED plug from the "Active" post on the PIRT circuit board.

   b. Connect the LED plug to the "Park" post.

5. Deactivate the walk test by moving DIP switch 7 to the ON position.

NOTE: Failure to disable the walk-test LED and set switch X7 to "on" will shorten battery life.

Mount Supervised Smoke Detector Transmitter

1. **Remove the back bracket from the detector.**

   Use the release tab marked "Press" to remove back for mounting.

2. **Mount the detector bracket.**

3. **Install the detector onto the bracket.**

4. **Perform second RF link test.**

   a. **Use a pencil to press the Test button on the front of the detector.**

   b. **Listen for the proper number of beeps from the Central Controller.**

   C. **Check the Central Controller to verify that the proper transmitter I.D. number appears.**

   d. **Check the status LEDs on the Central Controller for more information.**

STEP 19
Exit the Installer Test Mode

1. **Use the MESSAGES key on the Central Controller to scroll through the I.D. numbers.**

   - **If any are missing, go back and RE-test that transmitter now.**

   - **To remove unwanted numbers, press the CLEAR DISPLAY key now.**

2. **Press the Test/Demo key on the Central Controller.**

3. **Verify that the Installer Test Mode has been exited**

   - **Check the Central Controller digital display to confirm that the 'CC" has changed to '-0" to indicate that the system is in the Off state.**

   - **Listen to verify that the Installer Test Mode indication beeps have stopped.**

STEP 20
Program the wireless Siren/Controller

Set the House Code/Option DIP SWITCHES:

- Switches 1 - 7 set the House Code.

- Switch 8 determines whether the Witless Siren/Controller's internal sounder is on or off during an intrusion alarm.

ON = Silent
OFF = Sound

- Switch 9 should ALWAYS be ON.

Choose the Wireless Siren /Controller Antenna Run

Apply the information presented in the Installation Information section to each individual installation. It's critical that you identify:

- Sources of possible RF interference

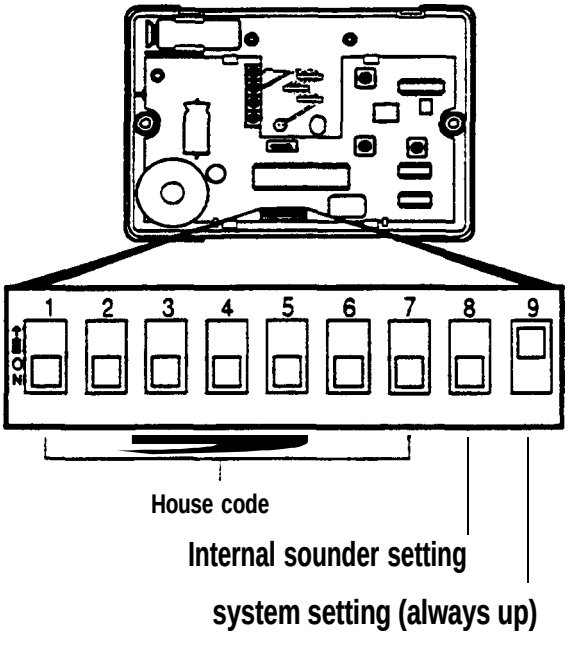
- Potential blocks to RF waves

Run the Antenna/Power Line from the Wlreless Siren/Controller to the Transfonner

The power cord/antenna wire should be #18 AWG wire.

Connect the antenna/power wire to the TOP two screw terminals labeled '12 VAC POWER IN".

Wireless Siren/Controller DIP Switches



Run optional auxiliary sounding device wires to the Wireless Siren/Controller

CAUTION: The Wireless Siren/Controller provides a total of 450 MA for auxiliary sounding devices. Do NOT exceed this total.

If an auxiliary sounding device(s) is being installed, connect the wires to the terminals labeled 'ONE OR TWO EXTERNAL SIRENS". Use the strain relief posts.

Install the auxiliary sounding device(s) according to the manufacturer's instnrctions

Thread all wires through the plastic strain relief posts before connecting to screw terminals

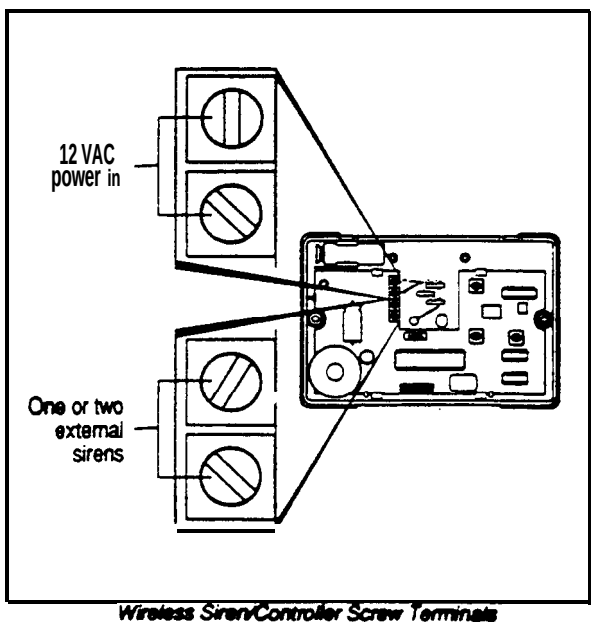
Attach the power cord/antenna wire to the transformer

Use only a Comcode Number 8456837 12 VAC transformer.

Plug in the transformer

Use a 120 VAC, 60 Hz, wall outlet. Secure the transformer with the screw provided (#6-32).

Verify that the AC Power Light is ON



Wireless Siren/Controller Screw Terminals

Connect the Battery	**Use the 9-volt battery that's included. BE SURE TO TEST IT FIRST!**
Enter the Wireless Siren /Controller Test Mode	**1. Press the internal 'CANCEL' button. Hold it for 6 SECONDS. The Wireless Siren/Controller will beep once when the button is pressed and again when it goes into the TEST MODE.** **2. Listen for the Wireless Siren/Controller Test Mode indication beeps to begin. There will be one beep every 40 seconds.**
Test the RF Link	**1. Press the Test/Demo key on the Central Controller.** **2. Listen for the verification beeps from the Wireless Siren/Controller.** **1 Beep = Excellent RF link** **2 Beeps = Excellent RF link Low Battery** **No Beeps = No RF message Relocate Wireless Siren/Conrollerr until 1 Beep is heard**
	NOTE: 8 beeps indicate the Central Controller has failed to check in. This can only happen after the initial installation of the system.
Exit Wireless Siren/Controller Test Mode	**Press the internal "CANCEL" button on the Wireless Siren/Controller.**

STEP 21
Perform the System Test

System Test Intrusion Transmitters

1. **Arm the system to the Away ststate using a wireless Remote/Transmitter.**
2. **Trip each intrusion transmitter.**
3. **Listen for the appropriate alarm sounding patterns from the the Central Controller.**
4. **Use the Wireless Remote/Transmitter to disarm the system.**
5. **Press the Messages key on the Central Controller to verify that the proper signals were received.**
6. **Call the Central Station to verify that the proper channel and account code were received.**

System Test Hardwired

1. **Arm the System**
2. **Trip each hardwired loop sensor.**
3. **Listen for the appropriate alarm from the Central Controller.**
4. **Disarm the system.**
5. **Press the Messages key on the Central controller to verify that the proper signals were received.**
6. **Call the Central Station to verify that the proper channel and account code were received.**

System Test 24-Hour Zone Transmitters

1. **Trip each 24-Hour zone transmitter (tire, panic, auxiliary, environmental).**

2. **Listen for the appropriate alarm sounding patterns from the Central Controller.**

3. **Reset the alarm system (disarm or cancel).**

4. **Press the Messages key on the Central Controller to verify that the proper signals were received.**

5. **Call the Central Station to verify that the proper channel and account code were received.**

RF Scanner

Refer to TECH TIPS, Volume I, Number 4, page 2 for information about testing with an RF Scanner.